

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013
 Phone (213) 576-6600 • Fax (213) 576-6640
 http://www.waterboards.ca.gov

ORDER NO. R4-2007-0039
NPDES NO. CA0055719

WASTE DISCHARGE REQUIREMENTS
FOR
ULTRAMAR, INC.
(WILMINGTON MARINE TERMINAL, BERTH 164)

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Ultramar, Inc. (a Valero Energy Corporation Company)
Name of Facility	Wilmington Marine Terminal, Berth 164
Facility Address	961 La Paloma Avenue
	Wilmington, CA 90744
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by the Operator from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Storm Water	33 °, 45', 33" N	118 °, 16', 02" W	Los Angeles Inner Harbor (via storm drain)
002	Storm Water	33 °, 45', 33" N	118 °, 15', 57" W	Los Angeles Inner Harbor (via storm drain)
003	Storm Water	33 °, 45', 36" N	118 °, 15', 55" W	Los Angeles Inner Harbor (via storm drain)
004	Hydrostatic Test Water	33 °, 45', 31" N	118 °, 16', 04" W	Los Angeles Inner Harbor

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	August 9, 2007
This Order shall become effective on:	September 8, 2007
This Order shall expire on:	July 10, 2012
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date

IT IS HEREBY ORDERED, that Order No. R4-2002-0029 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Deborah J. Smith, Interim Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on August 9, 2007.



Deborah J. Smith, Interim Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Ultramar, Inc. (a Valero Energy Corporation Company)
Name of Facility	Wilmington Marine Terminal, Berth 164
Facility Address	961 La Paloma Avenue
	Wilmington, CA 90744
	Los Angeles County
Facility Contact, Title, and Phone	Virginia R. Bleich, Senior Environmental Engineer (562) 495-5406
Mailing Address	P.O. Box 93102, Long Beach, CA 90809
Type of Facility	Industrial
Facility Design Flow	Not Applicable

II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board), finds:

- A. **Background.** Ultramar, Inc. (a Valero Energy Corporation Company) (hereinafter Discharger) is currently discharging pursuant to Order No. R4-2002-0029 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0055719. The Discharger submitted a Report of Waste Discharge, and applied for a NPDES permit renewal to discharge treated wastewater (storm water and up to 1.02 mgd of hydrostatic test water) from the Wilmington Marine Terminal, Berth 164, Battery 1, hereinafter Facility. An original application was submitted on June 13, 2006, and a revised application was submitted on June 28, 2006, and July 6, 2006. The application was deemed complete on July 6, 2006.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B. **Facility Description.** The Facility serves as a bulk storage and distribution facility for Ultramar’s Wilmington Refinery, two miles to the north east, and is connected to the Refinery by pipelines. The Facility receives and ships intermediates, feedstock, and refined products by pipeline, marine vessels and trucks. The Facility lies within the harbor area boundaries of the Port of Los Angeles. The nearby waterways include Los Angeles Harbor, Slip No. 1 (referred as Battery 1 by the Discharger), which serves the Terminal, and the East Basin Channel, both of which feed into the Harbor’s main ship channel. The Facility is located on property known as Mormon Island. The Facility includes a dock, two separate unloading rack areas, a fired heater area, a warehouse, a control house, offices and a five parcel tank farm. There are 15 petroleum storage tanks and 4 slop oil storage tanks. The Facility occupies approximately 8 acres, most of which is unpaved.

Storm water runoff from the five parcels (Parcels 1, 2, 3, 4, and 5) of the tank farm is discharged through Discharge Points 001, 002, and 003, after treatment from three separate oil-water separators. Parcels 1 and 2 share an oil-water separator, Parcel 3 has a dedicated oil-water separator, and Parcels 4 and 5 have a shared oil-water separator. The oil-water separators are designed to remove sediment, petroleum compounds, and grease picked-up by the storm water runoff. Storm water is collected in the tank containment areas and is discharged through the oil-water separators at a controlled rate, after testing determines that the storm water meets permit effluent limitations. Discharge volumes for each outfall are calculated based on the surface area of the tank farm and the amount of precipitation measured at the site. Each oil-water separator discharges to a storm drain on La Paloma Avenue then to the Los Angeles Inner Harbor, Battery 1, a water of the United States, within a coastal watershed.

As of 2006, the Facility ceased discharges from Discharge Points 001 and 002. Storm water from Parcels 1, 2 and 3 is pumped to Slop Tank 99-TK-1 in Parcel 3, and then directed to the Ultramar’s Wilmington Refinery for treatment prior to being discharged to the sanitary sewer (County Sanitation District of Los Angeles Waste Treatment Plant). However, the Discharger would like to retain the authority to continue to discharge storm water through Discharge Points 001, and 002, if necessary, and if all applicable effluent limitations are met.

Storm water from Parcels 4 and 5 continues to be piped from the oil-water separator and then discharged through Discharge Point 003 to the storm drain located on La Paloma Avenue

eventually discharging to the Los Angeles Inner Harbor, Battery 1, a water of the United States, within a coastal watershed.

In addition to storm water, hydrostatic test water is generated on-site during integrity testing of new or rehabilitated pipes and petroleum storage tanks. During repair and maintenance activities, hydrostatic test water is stored in the storage tanks prior to discharge and then directed by temporary hosing to Discharge Point 004 (located adjacent to Discharge Points, 001, 002, and 003) directly to the Los Angeles Inner Harbor, Battery 1, a water of the United States, within a coastal watershed. According to the renewal application, the maximum daily discharge volume for hydrostatic test water is 1.02 mgd. Attachment B provides a topographic map of the area around the facility. Attachment C provides a flow schematic of the facility.

The discharge of hydrostatic test water occurred twice (2003 and 2005) during the past five years. Because the discharge of hydrostatic test water is intermittent, no monthly average limitations are prescribed in this Order.

- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).
- D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.
- E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code sections 21100 – 21177.
- F. **Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at 40 C.F.R. § 122.44, title 40 of the Code of Federal Regulations¹, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet.
- G. **Water Quality-Based Effluent Limitations.** Section 301 of the CWA and 40 C.F.R. § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. § 122.44(d) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a

¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state’s narrative criterion, supplemented with other relevant information, as provided in 40 C.F.R. § 122.44(d)(1)(vi).

H. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to Los Angeles Inner Harbor are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Uses
001, 002, 003 and 004	Los Angeles Inner Harbor	<p><u>Existing:</u> Industrial Service Supply (IND); Navigation (NAV); Non-Contact Water Recreation (REC-2); Preservation of Rare, Threatened or Endangered Species (RARE); Commercial and Sport Fishing (COMM); and Marine Habitat (MAR).</p> <p><u>Potential:</u> Contact Water Recreation (REC-1) and Shellfish Harvesting (SHELL).</p>

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bay and Estuaries Policy), adopted by the State Water Resources Control Board (State Board) as Resolution No. 95-84 on November 16, 1995, states that:

“It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge.”

While the discharge from the Ultramar, Inc, Wilmington Marine Terminal, Berth 164 discharges into the Los Angeles Inner Harbor, within the enclosed bay, the wastewater is comprised primarily of storm water and hydrostatic test water, and therefore is not considered to be industrial process wastewater. Nonetheless, this Order contains provisions necessary to protect all beneficial uses of the receiving water.

Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised by the Regional Water Board on March 4, 2004, with the adoption of Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life". The ammonia Basin Plan amendment was approved by the Office of Administrative Law and by USEPA on September 15, 2004, and May 19, 2005, respectively. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA "Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives."

The amendment contains objectives for a 4-day average concentration of un-ionized ammonia of 0.035 mg/L, and a 1-hour average concentration of un-ionized ammonia of 0.233 mg/L. The objectives are fixed concentrations of un-ionized ammonia, independent of pH, temperature, or salinity. The amendment also contains an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limitations.

No limitation for ammonia is included in this Order because there is insufficient monitoring data to conduct reasonable potential analysis (RPA). The Order includes requirements for monitoring of ammonia for both effluent and receiving waters.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state, and on February 13, 2001, the CTR was amended. These rules contain water quality criteria for priority pollutants.
- J. **State Implementation Policy.** On March 2, 2000, State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality

objective. This Order does include compliance schedules and interim effluent limitations and discharge specifications. A detailed discussion of the basis for the compliance schedules and interim effluent limitations and discharge specifications are included in the Fact Sheet (Attachment F).

- L. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
- M. **Antidegradation Policy.** Section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- N. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 40 C.F.R. § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- O. **Monitoring and Reporting.** 40 C.F.R. § 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- P. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. § 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. § 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. § 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- Q. **Provisions and Requirements of Implementing State Law.** The provisions and requirements in subsections IV.B, IV.C, V.B, and VI.C of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

- R. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- S. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

- A. Wastes discharged shall be limited to storm water and a maximum of 1.02 mgd (1,020,000 gpd) of hydrostatic test water as described in the findings. The discharge of wastes from accidental spills or other sources is prohibited.
- B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Los Angeles Inner Harbor, Battery 1, or other waters of the State, are prohibited.
- C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.
- D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal CWA, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
- F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- G. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001, 002, 003, and 004

1. Final Effluent Limitations – Discharge Point 001

- a. The discharge of storm water from Parcels 1 and 2 shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E):

Table 6a. Effluent Limitations (Discharge Point 001)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	---	---	6.5	8.5
Oil and Grease	mg/L	---	15	---	---
Priority Pollutants					
Arsenic, Total Recoverable	µg/L	---	65.6	---	---
Copper, Total Recoverable	µg/L	---	5.8	---	---
Lead, Total Recoverable	µg/L	---	15.8	---	---
Mercury, Total Recoverable	µg/L	---	0.10	---	---
Nickel, Total Recoverable	µg/L	---	12.6	---	---
Silver, Total Recoverable	µg/L	---	2.2	---	---
Thallium, Total Recoverable	µg/L	---	12.6	---	---
Zinc, Total Recoverable	µg/L	---	95.1	---	---
Bis(2-Ethylhexyl)phthalate	µg/L	---	11.8	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Non-Conventional Pollutants</i>					
Phenolic Compounds, Total	mg/L	---	1.0	---	---
Temperature	°F	---	---	---	86

“---” No effluent limitation is applicable.

- b. There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:
- (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
 - (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

2. Final Effluent Limitations – Discharge Point 002

- a. The discharge of storm water from Parcel 3 shall maintain compliance with the following effluent limitations at Discharge Point 002, with compliance measured at Monitoring Location EFF-002 as described in the attached MRP (Attachment E):

Table 6b. Effluent Limitations (Discharge Point 002)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Conventional Pollutants</i>					
pH	s.u.	---	---	6.5	8.5
Oil and Grease	mg/L	---	15	---	---
<i>Priority Pollutants</i>					
Arsenic, Total Recoverable	µg/L	---	65.1	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	---	5.8	---	---
Lead, Total Recoverable	µg/L	---	15.7	---	---
Mercury, Total Recoverable	µg/L	---	0.10	---	---
Nickel, Total Recoverable	µg/L	---	13.7	---	---
Thallium, Total Recoverable	µg/L	---	12.6	---	---
Zinc, Total Recoverable	µg/L	---	95.1	---	---
Bis(2-Ethylhexyl)phthalate	µg/L	---	11.8	---	---
Non-Conventional Pollutants					
Phenolic Compounds, Total	mg/L	---	1.0	---	---
Temperature	°F	---	---	---	86

“---” No effluent limitation is applicable.

- b. There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:
- (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
 - (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

3. Final Effluent Limitations – Discharge Point 003

- a. The discharge of storm water from Parcels 4 and 5 shall maintain compliance with the following effluent limitations at Discharge Point 003, with compliance measured at Monitoring Location EFF-003 as described in the attached MRP (Attachment E):

Table 6c. Effluent Limitations (Discharge Point 003)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	---	---	6.5	8.5
Oil and Grease	mg/L	---	15	---	---
Priority Pollutants					
Arsenic, Total Recoverable	µg/L	---	63.2	---	---
Copper, Total Recoverable	µg/L	---	5.8	---	---
Lead, Total Recoverable	µg/L	---	15.7	---	---
Mercury, Total Recoverable	µg/L	---	0.10	---	---
Nickel, Total Recoverable	µg/L	---	13.5	---	---
Silver, Total Recoverable	µg/L	---	2.2	---	---
Thallium, Total Recoverable	µg/L	---	12.6	---	---
Zinc, Total Recoverable	µg/L	---	95.1	---	---
Bis(2-Ethylhexyl)phthalate	µg/L	---	11.8	---	---
Non-Conventional Pollutants					
Temperature	°F	---	---	---	86
Phenolic Compounds, Total	mg/L	---	1.0	---	---

“---” No effluent limitation is applicable.

- b. There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:
- (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
 - (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

4. Final Effluent Limitations – Hydrostatic Test Water through Discharge Point 004

- a. The discharge of hydrostatic test water shall maintain compliance with the following effluent limitations for hydrostatic test water at Discharge Point 004, with compliance measured at Monitoring Location EFF-004 as described in the attached MRP (Attachment E):

Table 6d. Effluent Limitations (Discharge Point 004)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biological Oxygen Demand (BOD) (5-day @ 20 Deg. C)	mg/L	---	30	---	---
Oil and Grease	mg/L	---	15	---	---
pH	pH Units	---	---	6.5	8.5
Total Suspended Solids (TSS)	mg/L	---	75	---	---
Priority Pollutants					
Copper, Total Recoverable	µg/L	---	5.8	---	---
Benzene	µg/L	---	1.0	---	---
Non-Conventional Pollutants					
Chlorine, Total Residual	mg/L	---	---	---	0.1
Settleable Solids	ml/L	---	0.3	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Sulfide, Total	mg/L	---	1.0	---	---
Temperature	⁰ F	---	86	---	---
Turbidity	NTU	---	75	---	---

“---” No effluent limitation is applicable.

b. There shall be no acute toxicity in the discharge. The acute toxicity of the effluent shall be such that:

- (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

5. Interim Effluent Limitations – Discharge Points 001, 002, and 003

- a. **Discharge Point 001:** During the period beginning the effective date of this Order and ending on May 17, 2010, the discharge of storm water shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 7a. Interim Effluent Limitations (Discharge Point 001)

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	---	91
Lead, Total Recoverable	µg/L	---	290
Mercury, Total Recoverable	µg/L	---	0.50
Nickel, Total Recoverable	µg/L	---	19
Silver, Total Recoverable	µg/L	---	5
Zinc, Total Recoverable	µg/L	---	1,500
Bis(2-ethylhexyl)Phthalate	µg/L	---	21

“---” No effluent limitation is applicable.

- b. **Discharge Point 002:** During the period beginning the effective date of this Order and ending on May 17, 2010, the discharge of storm water shall maintain compliance with the following limitations at Discharge Point 002, with compliance measured at Monitoring Location EFF-002 as described in the attached MRP (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 7b. Interim Effluent Limitations (Discharge Point 002)

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	---	87
Lead, Total Recoverable	µg/L	---	250
Mercury, Total Recoverable	µg/L	---	0.14
Nickel, Total Recoverable	µg/L	---	24
Zinc, Total Recoverable	µg/L	---	1,200
Bis(2-ethylhexyl)Phthalate	µg/L	---	24

“---” No effluent limitation is applicable.

- c. **Discharge Point 003:** During the period beginning the effective date of this Order and ending on May 17, 2010, the discharge of storm water shall maintain compliance with the following limitations at Discharge Point 003, with compliance measured at Monitoring Location EFF-003 as described in the attached MRP (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 7c. Interim Effluent Limitations (Discharge Point 003)

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	---	97
Lead, Total Recoverable	µg/L	---	300
Mercury, Total Recoverable	µg/L	---	0.50
Nickel, Total Recoverable	µg/L	---	18
Zinc, Total Recoverable	µg/L	---	1,400
Bis(2-ethylhexyl)Phthalate	µg/L	---	20

“---” No effluent limitation is applicable.

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WILMINGTON MARINE TERMINAL, BERTH 164
ORDER NO. R4-2007-0039
NPDES NO. CA0055719

B. Land Discharge Specifications

Not Applicable.

C. Reclamation Specifications

Not Applicable.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Los Angeles Inner Harbor:

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.
2. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.
3. Surface water temperature to rise greater than 5°F above the natural temperature of the receiving waters at any time or place. At no time the temperature be raised above 80° F as a result of waste discharged.
4. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2004-022. Resolution No. 2004-022 revised the ammonia water quality objectives for inland surface waters not characteristic of freshwater in the 1994 Basin Plan, to be consistent with USEPA's "*Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989.*" Adopted on March 4, 2004, Resolution No. 2004-022 was approved by State Water Board, Office of Administrative Law (OAL) and USEPA on July 22, 2004, September 14, 2004, and May 19, 2005, respectively and is now in effect.
5. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
6. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.
7. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
8. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
9. Accumulation of bottom deposits or aquatic growths.
10. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
11. The presence of substances that result in increases of BOD that adversely affect beneficial uses.
12. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.

13. Alteration of turbidity, or apparent color beyond present natural background levels.
14. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.
15. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
16. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
17. Create nuisance, or adversely effect beneficial uses of the receiving water.
18. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. Groundwater Limitations

Not Applicable.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:
 - a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
 - b. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
 - c. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
 - d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the Federal CWA and amendments thereto.
 - e. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
 - f. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
 - g. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
 - h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (1) Violation of any term or condition contained in this Order;

- (2) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
- (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 - i. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
 - j. The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.
 - k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
 - l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
 - m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.
 - n. The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

- o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- p. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

- q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
- (1) Name and general composition of the chemical,
 - (2) Frequency of use,
 - (3) Quantities to be used,
 - (4) Proposed discharge concentrations, and
 - (5) USEPA registration number, if applicable.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. If there is any conflict between provisions stated in the MRP and the Regional Water Board Standard Provisions, those provisions stated in the MRP shall prevail.

C. Special Provisions

1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
- c. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.
- d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Los Angeles Inner Harbor.
- e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:
- 1) A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency;
 - 2) A description of the facility's method of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility;
 - 3) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor. Section V of the MRP, Attachment E provides references for the guidance manuals that should be used for performing TIEs).

3. Best Management Practices and Pollution Prevention

The Discharger shall submit, within 90 days of the effective date of this Order:

- a. An updated Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment G.
- b. Best Management Practice Plan (BMPP) that entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The updated BMPP shall be consistent with the general guidance contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.
- c. An updated Spill Contingency Plan that shall be site specific and shall cover all areas of the facility including Parcels 1 and 2, Parcel 3 and Parcels 4 and 5.

The plans shall cover all areas of the facility and shall include an updated drainage map for the facility and current description of how storm water is directed to the Facility or to the outfalls. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points (e.g., chemical storage areas); describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of the storm water. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

4. Compliance Schedules

a. Compliance Plan.

- 1) The interim limitations stipulated in Section IV.A.5.a of this Order at Discharge Point 001 for copper, lead, mercury, nickel, silver, zinc, and bis(2-ethylhexyl)phthalate shall be in effect for a period not to extend beyond May 17, 2010. Thereafter, the Discharger shall comply with the limitations specified for copper, lead, mercury, nickel, silver, zinc and bis(2-ethylhexyl)phthalate in Section IV.A.1 of this Order.

The interim limitations stipulated in Section IV.A.5.b of this Order at Discharge Point 002 for copper, lead, mercury, nickel, zinc, and bis(2-ethylhexyl)phthalate shall be in effect for a period not to extend beyond May 17, 2010. Thereafter, the Discharger shall comply with the limitations specified for copper, lead, mercury, nickel, zinc and bis(2-ethylhexyl)phthalate in Section IV.A.2 of this Order.

The interim limitations stipulated in Section IV.A.5.c of this Order at Discharge Point 003 for copper, lead, mercury, nickel, zinc, and bis(2-ethylhexyl)phthalate shall be in effect for a period not to extend beyond May 17, 2010. Thereafter, the Discharger shall comply with the limitations specified for copper, lead, mercury, nickel, zinc and bis(2-ethylhexyl)phthalate in Section IV.A.3 of this Order.

- 2) The Discharger shall develop and submit, within 1 year of the effective date of this Order a compliance plan that will identify the measures that will be taken to reduce the concentrations of all the pollutants listed in Section IV.A.5.a, 5.b, and 5.c above for each outfall (Discharge Points 001, 002, and 003). These pollutants consist of copper, lead, mercury, nickel, silver, zinc, and bis(2-ethylhexyl)phthalate in their discharge. This plan must evaluate options to achieve compliance with the final effluent limitations within the deadline specified above.
- 3) The Discharger shall submit annual reports to describe the progress of studies and or actions undertaken to reduce copper, lead, mercury, nickel, silver, zinc, and bis(2-ethylhexyl)phthalate in the effluent, and to achieve compliance with the limitations in this Order by the deadline specified above. The Regional Water Board shall receive the first annual progress report at the same time the annual summary report is due, as required in section X.D of the MRP (Attachment E).

b. Pollutant Minimization Plan (PMP).

The Discharger shall develop a PMP to maintain effluent concentrations of arsenic, benzene, copper, lead, mercury, nickel, silver, thallium, zinc, bis(2-ethylhexyl)phthalate and acute toxicity at or below the effluent limitations specified in Final Effluent Limitations, Section IV.A.1.a, 2.a, and 3.a of this Order. The PMP shall include the following:

- 1) Annual review and quarterly monitoring of the potential sources of arsenic, benzene, copper, lead, mercury, nickel, silver, thallium, zinc, bis(2-ethylhexyl)phthalate and acute toxicity;
- 2) Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations at or below the effluent limitation;

- 3) Implementation of appropriate cost-effective control measures consistent with the control strategy;
- 4) An annual status report shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with section X.D of the MRP (Attachment E), and include:
 - (a) All PMP monitoring results for the previous year;
 - (b) A list of potential sources of arsenic, benzene, copper, lead, mercury, nickel, silver, thallium, zinc, bis(2-ethylhexyl)phthalate, and acute toxicity;
 - (c) A summary of all actions undertaken pursuant to the control strategy;
 - (d) A description of actions to be taken in the following year.

5. Construction, Operation and Maintenance Specifications

- a. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.

6. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable.

7. Other Special Provisions

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. Single Constituent Effluent Limitation.

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.H. of the MRP), then the Discharger is out of compliance.

B. Effluent Limitations Expressed as a Median.

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

1. If the number of measurements (n) is odd, then the median will be calculated as $= X_{(n+1)/2}$, or
2. If the number of measurements (n) is even, then the median will be calculated as $= [X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the $n/2$ and $n/2+1$ data points.

C. Multiple Sample Data.

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

D. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection E above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;

2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

3. In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.
4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL, then the Discharger is in violation of the AMEL.

E. Maximum Daily Effluent Limitations (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS

DEFINITIONS

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

µg/L: micrograms per Liter

mg/L: milligrams per Liter

MGD: million gallons per day

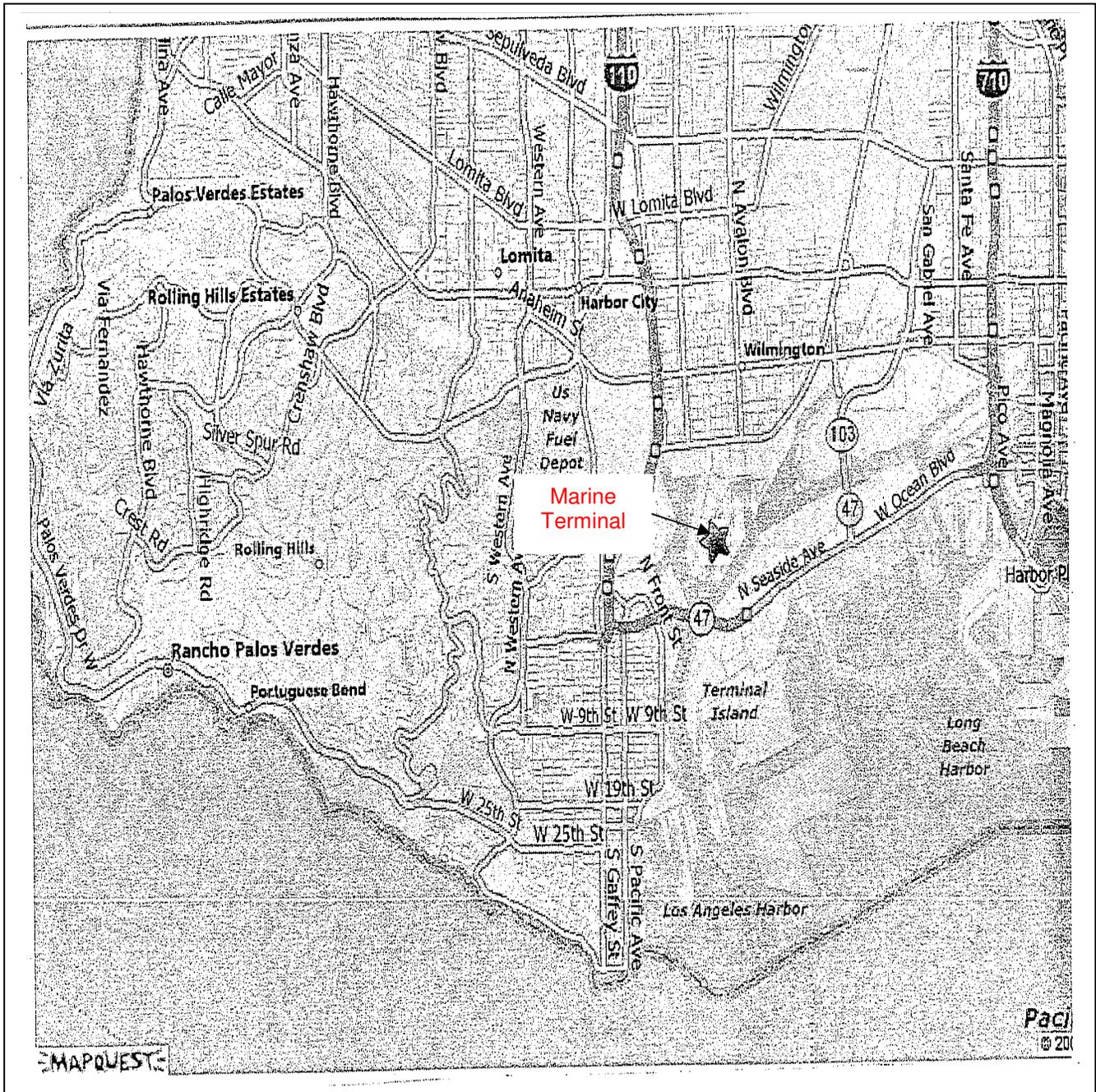
Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	<i>Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i>
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Ultramar, Inc.
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Health Services Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Wilmington Marine Terminal, Berth #164
gpd	gallons per day
IC	Inhibition Coefficient
IC ₁₅	Concentration at which the organism is 15% inhibited
IC ₂₅	Concentration at which the organism is 25% inhibited
IC ₄₀	Concentration at which the organism is 40% inhibited
IC ₅₀	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan

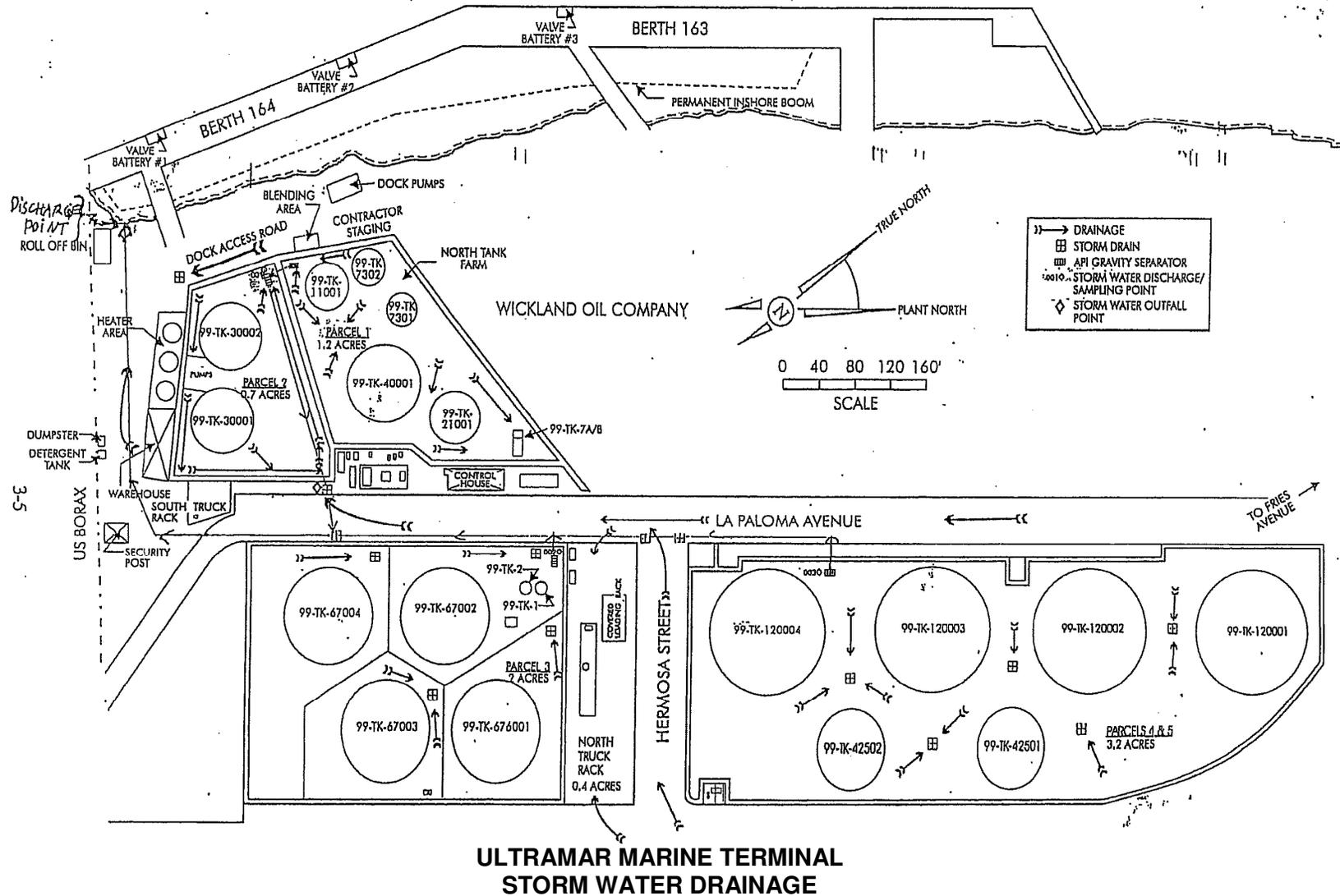
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Ocean Plan	<i>Water Quality Control Plan for Ocean Waters of California</i>
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (<i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i>)
SMR	Self Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	<i>Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California</i>
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solid
TU _c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELS	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

ATTACHMENT B – TOPOGRAPHIC MAP



**WILMINGTON MARINE TERMINAL
SITE LOCATION MAP**

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [40 C.F.R. § 122.41(a)].
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement 40 C.F.R. § 122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [40 C.F.R. § 122.41(c)].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [40 C.F.R. § 122.41(d)].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [40 C.F.R. § 122.41(e)].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [40 C.F.R. § 122.41(g)].
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [40 C.F.R. § 122.5(c)].

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 C.F.R. § 122.41(i); *Water Code* § 13383(c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 C.F.R. § 122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 C.F.R. § 122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 C.F.R. § 122.41(i)(3)];
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [40 C.F.R. § 122.41(i)(4)].

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 C.F.R. § 122.41(m)(1)(i)].
 - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 C.F.R. § 122.41(m)(1)(ii)].
2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [40 C.F.R. § 122.41(m)(2)].
3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [40 C.F.R. § 122.41(m)(4)(i)]:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 C.F.R. § 122.41(m)(4)(A)];
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 C.F.R. § 122.41(m)(4)(B)]; and

- c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [40 C.F.R. § 122.41(m)(4)(C)].
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [40 C.F.R. § 122.41(m)(4)(ii)].
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass 40 C.F.R. § 122.41(m)(3)(i).
 - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below [40 C.F.R. § 122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 C.F.R. § 122.41(n)(1)].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 C.F.R. § 122.41(n)(2)].
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 C.F.R. § 122.41(n)(3)]:
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 C.F.R. § 122.41(n)(3)(i)];
 - b. The permitted facility was, at the time, being properly operated [40 C.F.R. § 122.41(n)(3)(ii)];
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [40 C.F.R. § 122.41(n)(3)(iii)]; and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [40 C.F.R. § 122.41(n)(3)(iv)].
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 C.F.R. § 122.41(n)(4)].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [40 C.F.R. § 122.41(f)].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [40 C.F.R. § 122.41(b)].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [40 C.F.R. § 122.41(l)(3) and 40 C.F.R. § 122.61].

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 C.F.R. § 122.41(j)(1)].
- B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [40 C.F.R. § 122.41(j)(4) and 40 C.F.R. § 122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 C.F.R. § 122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [40 C.F.R. § 122.41(j)(3)(i)];
2. The individual(s) who performed the sampling or measurements [40 C.F.R. § 122.41(j)(3)(ii)];
3. The date(s) analyses were performed [40 C.F.R. § 122.41(j)(3)(iii)];

4. The individual(s) who performed the analyses [40 C.F.R. § 122.41(j)(3)(iv)];
5. The analytical techniques or methods used [40 C.F.R. § 122.41(j)(3)(v)]; and
6. The results of such analyses [40 C.F.R. § 122.41(j)(3)(vi)].

C. Claims of confidentiality for the following information will be denied [40 CFR §122.7(b)]:

1. The name and address of any permit applicant or Discharger [40 C.F.R. § 122.7(b)(1)]; and
2. Permit applications and attachments, permits and effluent data [40 C.F.R. § 122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [40 C.F.R. § 122.41(h); *Water Code § 13267*].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, AND V.B.5 below [40 C.F.R. § 122.41(k)].
2. All permit applications shall be signed as follows:
 - a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [40 C.F.R. § 122.22(a)(1)];
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [40 C.F.R. § 122.22(a)(2)]; or
 - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive

officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 C.F.R. § 122.22(a)(3)].

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in paragraph (b) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in paragraph (2.) of this provision [40 C.F.R. § 122.22(b)(1)];
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 C.F.R. § 122.22(b)(2)]; and
 - c. The written authorization is submitted to the Regional Water Board, State Water Board, or USEPA [40 C.F.R. § 122.22(b)(3)].
4. If an authorization under paragraph (3.) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3.) of this provision must be submitted to the Regional Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 C.F.R. § 122.22(c)].
5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations” [40 C.F.R. § 122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the MRP in this Order [40 C.F.R. § 122.41(l)(4)].
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [40 C.F.R. § 122.41(l)(4)(i)].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 C.F.R. § 122.41(l)(4)(ii)].
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 C.F.R. § 122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 C.F.R. § 122.41(l)(5)].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 C.F.R. § 122.41(l)(6)(i)].
2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 C.F.R. § 122.41(l)(6)(ii)]:
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 C.F.R. § 122.41(l)(6)(ii)(A)].
 - b. Any upset that exceeds any effluent limitation in this Order [40 C.F.R. § 122.41(l)(6)(ii)(B)].
 - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [40 C.F.R. § 122.41(l)(6)(ii)(C)].
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 C.F.R. § 122.41(l)(6)(iii)].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 C.F.R. § 122.41(l)(1)]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b) [40 C.F.R. § 122.41(l)(1)(i)]; or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. § 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [40 C.F.R. § 122.41(l)(1)(ii)].
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 C.F.R. § 122.41(l)(1)(iii)].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [40 C.F.R. § 122.41(l)(2)].

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [40 C.F.R. § 122.41(l)(7)].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [40 C.F.R. § 122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

- A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307,

308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 C.F.R. § 122.41(a)(2)] [Water Code sections 13385 and 13387].

- B. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 C.F.R. § 122.41(a)(3)].
- C. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 C.F.R. § 122.41(j)(5)].
- D. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 C.F.R. § 122.41(k)(2)].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [40 C.F.R. § 122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 C.F.R. § 122.42(a)(1)]:
 - a. 100 micrograms per liter ($\mu\text{g/L}$) [40 C.F.R. § 122.42(a)(1)(i)];
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 C.F.R. § 122.42(a)(1)(ii)];

- c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 C.F.R. § 122.42(a)(1)(iii)]; or
 - d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [40 C.F.R. § 122.42(a)(1)(iv)].
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels” [40 C.F.R. § 122.42(a)(2)]:
- a. 500 micrograms per liter (µg/L) [40 C.F.R. § 122.42(a)(2)(i)];
 - b. 1 milligram per liter (mg/L) for antimony [40 C.F.R. § 122.42(a)(2)(ii)];
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 C.F.R. § 122.42(a)(2)(iii)]; or
 - d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [40 C.F.R. § 122.42(a)(2)(iv)].

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [40 C.F.R. § 122.42(b)]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [40 C.F.R. § 122.42(b)(1)]; and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [40 C.F.R. § 122.42(b)(2)].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [40 C.F.R. § 122.42(b)(3)].

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 2165

The Code of Federal Regulations 40 C.F.R. § 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Storm water effluent monitoring stations shall be established in each of the three oil-water separators at the Facility. In Parcels 1 and 2, an effluent sampling station (M-001) shall be established in the last chamber of the oil-water separator prior to discharge from Discharge Point 001 to the La Paloma Avenue storm drain [Latitude 33 °, 45', 33" N", Longitude 118°, 16', 2" W"]. In Parcel 3, an effluent sampling station (M-002) shall be established in the last chamber of the oil-water separator prior to discharge from Discharge Point 002 to the La Paloma Avenue storm drain [Latitude 33 °, 45', 33" N, Longitude 118 °, 15', 57" W]. In Parcels 4 and 5, an effluent sampling station (M-003) shall be established in the last chamber of the oil-water separator prior to discharge from Discharge Point 003 to the La Paloma Avenue storm drain [Latitude 33 °, 45', 36" N, Longitude 118 °, 15', 55" W]. All sampling stations shall be located where representative samples of that effluent can be obtained.
- B. The hydrostatic test water monitoring station (M-004) shall be established at Discharge Point 004 [Latitude 33 °, 45', 31" N", Longitude 118 °, 16', 4" W"] where discharges of hydrostatic test water are drained via temporary hosing and directed to Battery 1, Los Angeles Inner Harbor. The sampling station shall be located where representative samples of that effluent can be obtained.
- C. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.
- D. The Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- E. Pollutants shall be analyzed using the analytical methods described in sections 136.3, 136.4, and 136.5 (revised March 12, 2007); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- F. For any analyses performed for which no procedure is specified in the USEPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP".

H. The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) are those published by the State Water Board in the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, March 2, 2000.

I. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;
2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 14, 1999);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix; or,
5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

J. Water/wastewater samples must be analyzed within allowable holding time limits as specified in section 136.3. All QA/QC items must be run on the same dates the samples were actually

analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.

- K. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- L. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
- M. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in Section X.D shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.
- N. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.
- O. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.
- P. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
 - 1. Types of wastes and quantity of each type;
 - 2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
 - 3. Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

Q. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Oil-water separator located at Latitude 33 °, 45', 33" N", Longitude 118 °, 16', 2" W"
002	EFF-002	Oil-water separator located at Latitude 33 °, 45', 33" N", Longitude 118 °, 15', 57" W"
003	EFF-003	Oil-water separator located at Latitude 33 °, 45', 31" N", Longitude 118 °, 16', 4" W"
004	EFF-004	Prior to Discharge Point 004 to Los Angeles Inner Harbor Latitude 33 °, 45', 31" N", Longitude 118 °, 16', 4" W"
---	RSW-001	A point less than 50 feet from Discharge Point 004 (within the influence of the discharge) by Battery 1. The direction of the tidal flow at the time of sample collection shall be away from the discharge point and towards the sampling point.
---	RSW-002	A point greater than 50 feet from the Discharge Point 004 (outside the influence of the discharge) by Battery 1. The direction of the tidal flow at the time of sample collection shall be towards the discharge point and away from the sampling point.

III. INFLUENT MONITORING REQUIREMENTS

Not Applicable.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001, EFF-002 and EFF-003

- The Discharger shall monitor storm water at EFF-001, EFF-002 and at EFF-003 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

Table E-2. Effluent Monitoring at Monitoring Locations EFF-001, EFF-002, and EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
Total Flow	gal/day	---	1/Discharge Event	²
pH	pH Units	Grab	1/Discharge Event	²
Conductivity	µmho/cm	Grab	1/Discharge Event	²
Oil and Grease	mg/L	Grab	1/Discharge Event	²

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
Total Organic Carbon	mg/L	Grab	1/Discharge Event	²
Total Suspended Solids (TSS)	mg/L	Grab	1/Discharge Event	²
Phenolic Compounds, Total	mg/L	Grab	1/Discharge Event	²
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event	²
Arsenic, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Chromium (VI)	µg/L	Grab	1/Discharge Event	²
Total chromium	µg/L	Grab	1/Discharge Event	²
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Mercury, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Selenium, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Silver, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Thallium, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event	²
Benzene	µg/L	Grab	1/Discharge Event	²
Bis (2-ethylhexyl)phthalate	µg/L	Grab	1/Discharge Event	²
Ethylbenzene	µg/L	Grab	1/Discharge Event	²
Toluene	µg/L	Grab	1/Discharge Event	²
Xylene	µg/L	Grab	1/Discharge Event	²
Acute Toxicity	% Survival	Grab	1/Year	²
Remaining Priority Pollutants ³	µg/L	Grab	1/Year	²

¹ During periods of extended rainfall, no more than one sample per week needs to be taken. Sampling shall be during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity and the reason for the delay shall be included in the report.

² Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136. For priority pollutants, the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, and included as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

³ Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

B. Monitoring Location EFF-004

1. The Discharger shall monitor hydrostatic test water at EFF-004 as follows:

Table E-3. Effluent Monitoring at Monitoring Location EFF-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Flow	gal/day	---	1/Discharge Event	1
pH	pH Units	Grab	1/Discharge Event	1
Temperature	⁰ F or ⁰ C	Grab	1/Discharge Event	1
Total Suspended Solids (TSS)	mg/L	Grab	1/Discharge Event	1
Settleable Solids	ml/L	Grab	1/Discharge Event	1
Turbidity	mg/L	Grab	1/Discharge Event	1
BOD ₅ 20 ⁰ C	mg/L	Grab	1/Discharge Event	1
Chlorine, Total Residual	mg/L	Grab	1/Discharge Event	1
Sulfides	mg/L	Grab	1/Discharge Event	1
Oil and Grease	mg/L	Grab	1/Discharge Event	1
Arsenic, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Chromium (VI)	µg/L	Grab	1/Discharge Event	1
Chromium (Total)	µg/L	Grab	1/Discharge Event	1
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Mercury, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Selenium, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Silver, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event	1
Benzene ³	µg/L	Grab	1/Discharge Event	1
Ethylbenzene ³	µg/L	Grab	1/Discharge Event	1
Toluene ³	µg/L	Grab	1/Discharge Event	1
Xylene ³	µg/L	Grab	1/Discharge Event	1
Phenol	µg/L	Grab	1/Discharge Event	1
Acute Toxicity	% Survival	Grab	1/Year	1
Remaining Priority Pollutants ^{2,3}	µg/L	Grab	1/Year	1

¹ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136. For priority pollutants, the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, and included as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

² Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

³ Not applicable to new pipes and storage tanks.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Definition of Toxicity

Acute Toxicity.

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

- (a) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- (b) No single test shall produce less than 70% survival.

B. Acute Toxicity Effluent Monitoring Program

1. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.
2. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent, for discharges from Discharge Points 001, 002, 003, and 004.
3. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in USEPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, Third Edition, October 2002 (EPA/821-R-02-014), or a more recent edition.

C. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

D. Accelerated Monitoring and Initial Investigation TRE Trigger

1. Special Provision VI.C.2.b of the Order requires the Discharger to develop and submit for approval an Initial Investigation TRE Workplan.
2. If the results of a toxicity test exceed the acute toxicity effluent limitations (as defined below):

Acute Toxicity:

- (a) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- (b) No single test shall produce less than 70% survival.

then, the Discharger shall begin the investigation and evaluation as specified in the Dischargers's Initial Investigation TRE Workplan and begin accelerated monitoring by conducting six additional tests, approximately every 2 weeks, over a 12-week period, if possible. The samples shall be collected and the tests initiated no less than 7 days apart. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result.

3. If implementation of the Initial Investigation TRE Workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the Initial Investigation Toxicity Reduction Evaluation and resume routine testing frequency.
4. The first step in the Initial Investigation TRE Workplan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent from Discharge Point 001 causes or contributes to the measured downstream toxicity. If this first step in the Initial Investigation TRE Workplan shows that the Discharge Points effluent does not cause or contribute to downstream toxicity, using USEPA's *Short Term Methods for Estimating the Acute Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fifth Edition, October 2002 (EPA/821/R-02-012), or USEPA's *Short Term Methods for Estimating the Acute of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821/R-02-014) then a report on this testing shall be submitted to the Regional Water Board and the Initial Investigation TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

E. TRE/TIE Trigger

1. If the accelerated testing shows consistent toxicity as defined below:
 - a. Acute Toxicity:
 - 1) If the results of any two of the six accelerated tests are less than 90% survival, or
 - 2) If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival

then, the Discharger shall immediately implement the Toxicity Reduction Evaluation (TRE) as described below.

F. Steps in TRE and TIE Procedures

1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's Initial Investigation TRE workplan. At a minimum, the Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which will include, but not be limited to:
 - a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
 - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,
 - d. A schedule for these actions.
2. The following is a stepwise approach in conducting the TRE:
 - a. Step 1 - Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
 - b. Step 2 - Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
 - c. Step 3 – If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) by employing all reasonable efforts and using currently available TIE methodologies. The Discharger shall use the USEPA acute manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
 - d. Step 4 – Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
 - e. Step 5 evaluates in-plant treatment options; and,
 - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer toxicity (or six consecutive acute toxicity test results are greater than 90% survival).

3. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.
4. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.
5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

G. Reporting

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival for acute toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.
 - a. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
 - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;
 - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. NOEC value(s) in percent effluent;
 - f. IC₁₅, IC₂₅, IC₄₀ and IC₅₀ values in percent effluent;
 - g. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
 - i. NOEC and LOEC values for reference toxicant test(s);
 - j. IC₂₅ value for reference toxicant test(s);
 - k. Any applicable charts; and
 - l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable.

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location Upstream: RSW-001

1. The Discharger shall monitor Los Angeles Inner Harbor at RSW-001 as follows:

Table E-4. Receiving Water Monitoring Requirements at Monitoring Location RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency ^{1a}	Required Analytical Test Method
pH	s.u.	Grab ¹	1/Quarter ^{2,3}	4
Temperature	°F	Grab	1/Quarter ^{2,3}	4
Fecal Coliform	MPN/100ml	Grab ¹	1/Quarter ²	4
Ammonia Nitrogen, Total (as N)	mg/L	Grab ¹	1/Quarter ^{2,3}	4
Dissolved Oxygen	mg/L	Grab ¹	1/Quarter ^{2,3}	4
Salinity	ppt	Grab	1/Year ⁵	4
Priority Pollutants ⁶	µg/L	Grab	1/Year	4

¹ Samples shall be obtained within ten centimeters of the surface.
^{1a} If no discharges occur during a quarter, no sample need be taken and this shall be reported in the quarterly report.
² Must be sampled during periods of discharge or within 12 hours of storm water discharge.
³ Must be sampled during periods of discharge or within 12 hours of hydrostatic test water discharge.
⁴ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, and included as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.
⁵ Receiving water pH, salinity, temperature must be analyzed at the same time the samples are collected for priority pollutants analysis.
⁶ Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

B. Monitoring Location Downstream: RSW-002

1. The Discharger shall monitor Los Angeles Inner Harbor at RSW-002 as follows:

Table E-5. Receiving Water Monitoring Requirements at Monitoring Location RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency ^{1a}	Required Analytical Test Method
pH	s.u.	Grab ¹	1/Quarter ^{2,3}	4
Temperature	°F	Grab	1/Quarter ^{2,3}	4
Dissolved Oxygen	mg/L	Grab ¹	1/Quarter ^{2,3}	4
Ammonia Nitrogen, Total (as N)	mg/L	Grab ¹	1/Quarter ^{2,3}	4
Fecal Coliform	MPN/100ml	Grab ¹	1/Quarter ²	4

¹ Samples shall be obtained within ten centimeters of the surface.

^{1a} If no discharges occur during a quarter, no sample need be taken and this shall be reported in the quarterly report.

² Must be sampled during periods of discharge or within 12 hours of storm water discharge.

³ Must be sampled during periods of discharge or within 12 hours of hydrostatic test water discharge.

⁴ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136.

C. Visual Monitoring of Upstream and Downstream Receiving Water Sampling Points

1. A visual observation station shall be established in the vicinity of the Discharge Point 004 to the receiving water Los Angeles Inner Harbor.
2. General observations of the receiving water shall be made at each discharge point when discharges occur. During months of no discharge, the receiving water observations shall be made on a monthly basis. All receiving water observations shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:
 - a. Tidal stage, time, and date of monitoring
 - b. Weather conditions
 - c. Color of water
 - d. Appearance of oil films or grease, or floatable materials
 - e. Extent of visible turbidity or color patches
 - f. Direction of tidal flow
 - g. Description of odor, if any, of the receiving water
 - h. Presence and activity of California Least Tern and California Brown Pelican.

IX. OTHER MONITORING REQUIREMENTS

A. Effluent/Receiving Water Monitoring for 2,3,7,8-TCDD Congeners.

The Discharger is also required to conduct effluent water monitoring at Discharger Points 001, 002, and 003, and receiving water monitoring at RSW-001 for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample during discharge (once during the wet weather and once during dry weather) for two years (during the 2nd year and 4th year of the permit). The 2,3,7,8-TCDD and the 16 congeners

are listed in the Table below. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

Congeners	TEF
2,3,7,8-tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Monitoring data shall be submitted in accordance with the reporting schedule in Section X.B. of this *M&RP*.

B. SWPPP, BMPP, and Spill Contingency Plan Status and Effectiveness Report

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit an updated SWPPP, BMPP, and Spill Contingency Plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit
2. Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP, and Spill Contingency Plan Status required under Special Provision VI.C.3 of this Order. The SWPPP, BMPP, and Spill Contingency Plan Status shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the facility are addressed in the SWPPP, BMPP, and Spill Contingency Plan Status. All changes or revisions to the SWPPP, BMPP, and Spill Contingency Plan Status will be summarized in the annual report required under Attachment E, Monitoring and Reporting, Section X.D.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.
5. The Discharger shall report the results of acute toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.F.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs. Until such notification is given, the Discharger shall submit SMRs in accordance with the requirements described below.
2. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Quarterly reports shall be due on May 1, August 1, November 1, and February 1 following each calendar quarter.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-6. Monitoring Periods and Reporting Schedule Discharge Points 001- 003

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1 / Discharge Event	First discharge following the effective date of the permit	Permit term	First day of second calendar month following sampling
1 / Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / semiannual	Closest of January 1 or July 1 following (or on) December 9, 2006	January 1 through June 30 July 1 through December 31	August 1 February 1
1 / Year	January 1 following (or on) permit effective date	January 1 through December 31	February 1

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR § 136.
5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. Where applicable, the Discharger shall include results of receiving water observations.
6. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

7. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
8. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board
 Los Angeles Region
 320 W. 4th Street, Suite 200
 Los Angeles, CA 90013

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 of this MRP, at any time during the term of this permit, the State or Regional Water Board may notify the discharger to electronically submit DMRs. Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

Standard Mail	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:
 - a. Initial Investigation TRE workplan
 - b. Updated SWPPP
 - c. Updated BMPP
 - d. Spill Contingency Plan
2. By March 1 of each year, the Discharger shall submit an annual report to the Regional Water Board. The report shall contain the following:
 - a. Both tabular and graphical summaries of the monitoring data obtained during the previous year,

- b. A discussion on the compliance record and the corrective actions taken or planned to bring the discharge into full compliance with the waste discharge requirements,
 - c. A report discussing the following: 1) operation/maintenance problems; 2) changes to the facility operations and activities; 3) potential discharge of the pollutants associated with the changes and how these changes are addressed in the BMPP; 3) calibration of flow meters or other equipment/device used to demonstrate compliance with effluent limitations of this Order.
 - d. A report summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged (See Section IX.B of the MRP, Attachment E).
 - e. A report on the status of the implementation and the effectiveness of the SWPPP, BMPP, and Spill Contingency Plan.
3. As discussed in Section VIII.E of the MRP, Attachment E, the Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.
4. If the Discharger wishes to participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Los Angeles Inner Harbor, then, as discussed in Section VIII.F of the MRP, Attachment E, the Discharger shall submit a report seeking approval of the Regional Water Board.
5. This Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
 - a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
 - b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
 - c. Describe facilities and procedures needed for effective preventive and contingency plans.
 - d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

This Regional Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the Discharger.

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	4B192023002
Discharger	Ultramar, Inc. (a Valero Energy Corporation Company)
Name of Facility	Wilmington Marine Terminal Berth 164
Facility Address	961 La Paloma Avenue
	Wilmington, CA 90744
	Los Angeles County
Facility Contact, Title and Phone	Virginia R. Bleich, Senior Environmental Engineer, (562) 495 – 5406
Authorized Person to Sign and Submit Reports	Jason Lee, Refinery Health, Safety and Environmental Director Wesley Waida, Manager Environmental Affairs (562) 495 – 5421
Mailing Address	P.O. Box 93102, Long Beach, CA 90809
Billing Address	SAME
Type of Facility	Industrial (SIC code: 4463)
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	N
Reclamation Requirements	Not Applicable
Facility Permitted Flow	1.02 million gallons per day (MGD) of hydrostatic test water
Facility Design Flow	Not Applicable
Watershed	Dominguez Channel and Los Angeles/Long Beach Harbors
Receiving Water	Los Angeles Inner Harbor
Receiving Water Type	Coastal Surface Water

- A.** Ultramar, Inc., a Valero Energy Corporation Company (hereinafter Discharger), leases and operates the Wilmington Marine Terminal, Berth 164 (hereinafter Facility) a bulk storage and distribution facility that receives and ships intermediates, feedstock, and refined products by pipeline, marine vessels and trucks.

For purposes of this Order, references to the “Discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B.** The Facility discharges wastewater (storm water and hydrostatic test water) to the Los Angeles Inner Harbor, Slip No. 1 (referred as Battery 1 by the Discharger), a water of the United States, both directly and via a storm drain and is currently regulated by Order R4-2002-0029 which was adopted on January 24, 2002, and expired on December 10, 2006. The terms and conditions of the current Order have been administratively extended and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.
- C.** The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit. An original application was submitted on June 13, 2006. The application was revised on June 29, 2006, and July 6, 2006. A site visit was conducted on January 18, 2007, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

Ultramar, Inc. leases and operates the Wilmington Marine Terminal, Berth 164. The Facility is located on a property known as Mormon Island. The Facility serves as a bulk storage and distribution facility for Ultramar's Wilmington Refinery, and is connected to the Refinery by pipelines. The Facility receives and ships intermediates, feedstock and refined products by pipeline, marine vessels, and trucks. The Facility includes a dock, two separate unloading rack areas, a fired heater area, a warehouse, control house, offices, and a five-parcel tank farm. Each tank farm is surrounded by a 12-foot high concrete containment wall. There are 15 petroleum storage tanks and 4 slop oil storage tanks. The Facility occupies approximately 8 acres, most of which is unpaved. Attachment C depicts the major structures of the Facility.

The Facility borders Wickland Oil Company's marine terminal to the north and U.S. Borax's marine terminal to the south. Parcel 1 is located west of La Paloma Avenue. Parcel 1 is approximately 1.2 acres, consisting of three oil storage tanks and two slop tanks. The oil storage tank volumes range in capacity from approximately 11,000 barrels to 40,000 barrels. Parcel 2 is located west of La Paloma Avenue, and occupies 0.7 acres, consisting of two oil storage tanks. The tank volumes are approximately 30,000 barrels. Parcel 3 is located east of La Paloma Avenue and south of Hermosa Street, and with total area of approximately 2 acres, consisting of four oil storage tanks and two slop oil tanks. The oil storage tank volumes are approximately 67,000 barrels. Parcels 4 and 5 are located east of La Paloma Avenue and north of Hermosa Street, with total area of approximately 3.2 acres, consisting of 6 oil storage tanks. The tank volumes range in capacity from approximately 42,000 barrels to 120,000 barrels.

A. Description of Wastewater and Biosolids Treatment or Controls

The treatment systems consist of oil-water separators. The separators are designed to remove sediment, petroleum compounds and grease picked-up by the storm water runoff. Parcels 1 and 2 share an oil-water separator, Parcel 3 has a dedicated oil-water separator and Parcels 4 and 5 have a shared oil-water separator. Storm water at the terminal is mostly accumulated within the tank farm containment walls and conveyed to the storm water management system. Storm water is discharged through Discharge Points 001, 002, and 003 (see table on cover page) to the Los Angeles Inner Harbor, Battery 1, a water of the United States, within a coastal Watershed, via a storm drains on La Paloma Avenue.

Hydrocarbons which are collected in the sumps are transferred by level-activated pumps through a system of pipes to the primary slop oil tanks in Parcel 3 (e.g., Tanks 99-TK-1 and 99-TK-2). These tanks normally receive all of the slop oil in the system and are interconnected to

fill simultaneously. Oil and rainwater in these tanks is transferred by pipe or vacuum truck to secondary slop oil tanks in Parcel 1 (e.g., Tank 99-TK-7301 and Tank 99-TK-7302). The secondary tanks augment overall system capacity, and provide additional capacity during major storms. The slop oil is then transferred via pipeline to the Ultramar’s Wilmington Refinery slop oil system. At the refinery, slop oil is recycled and processed for product recovery.

Storm water is discharged from the oil-water separators at a controlled rate, after testing determines that the storm water meets permit effluent limitations. Discharge volumes for each outfall are calculated based on the surface area of the tank farm and the amount of precipitation measured at the site. Estimates of the areas of impervious surfaces drained to each outfall, and an estimate of the total surface area drained by the outfall, are as follows:

Outfall Number	Area of Impervious Surface	Total Area Drained
001	0.8 acres	1.9 acres
002	0.7 acres	2 acres
003	1.5 acres	3.2 acres

In addition to storm water, hydrostatic test water is generated from integrity testing of new or rehabilitated pipes and petroleum storage tanks and discharged from the Facility. During repair and maintenance activities, hydrostatic test water is stored in the storage tanks prior to discharge. Untreated hydrostatic test water is discharged using temporary hoses from each parcel of the Facility directly through Discharge Point 004 (see table on cover page) into the Los Angeles Inner Harbor, Battery 1. According to the ROWD, the discharge of hydrostatic test water from integrity testing of new or rehabilitated pipes and petroleum storage tanks occurred in January 2004 and June 2005.

During the discharge of storm water, hydrostatic test water is not discharged through the discharge points. During the discharge of hydrostatic test water, storm water is not discharged through the discharge points.

The ROWD (USEPA Form 2E) states the maximum daily discharge flow rate of hydrostatic test water is 1,019,214 gpd (approximately 1.02 MGD).

B. Discharge Points and Receiving Waters

In Parcel 1, sloping ground directs the storm water to a drain and sump. From the sump in Parcel 1, storm water is then pumped to the oil-water separator. In Parcel 2, sloping ground and one trench directs storm water to the same oil-water separator. Discharge Point 001 is located after the final chamber of this oil water separator and discharges into the storm drain on La Paloma Avenue (Latitude 33° 45’, 33” North, Longitude 118°, 16’, 02” West), and into the Battery 1, Los Angeles Inner Harbor.

In Parcel 3, storm water drains through a network of area drains. Each tank has a separate, limited containment wall of approximately 2 feet high. Separate drains in each area connect to the oil-water separator located in the northwest corner. As of 2006, the facility had installed permanent piping, but is currently using a portable pump and temporary piping to pump the treated storm water into the Slop Tank 99-TK-1 in Parcel 3 and then to the Refinery for treatment before being discharge to the County Sanitation District of Los Angeles Waste Treatment Plant. The Facility plans on using the permanent pipe system in the future. Discharge Point 002 is located after the final chamber of this oil water separator and discharges

into the storm drain on La Paloma Avenue (Latitude 33° 45', 33" North, Longitude 118°, 15', 57" West), and subsequently into the Battery 1, Los Angeles Inner Harbor.

As of 2006, the Facility ceased discharges from Discharge Points 001 and 002. Storm water from Parcels 1, 2 and 3 is pumped to Slop Tank 99-TK-1 in Parcel 3, and then directed to the Ultramar's Wilmington Refinery for treatment prior to being discharged to the sanitary sewer (County Sanitation District of Los Angeles Waste Treatment Plant). However, the Discharger would like to retain the authority to continue discharges of storm water through Discharge Points 001, and 002, if necessary, and if all applicable effluent limitations are met.

In Parcels 4 and 5, storm water accumulates into the storm drains which all drain into the oil-water separator on the west side of the parcel. Storm water from Parcels 4 and 5 is discharged from the oil-water separator through Discharge Point 003 to the La Paloma Avenue storm drain (Latitude 33°, 45', 31" North, Longitude 118°, 16', 04" West), which then discharges into Battery 1, Los Angeles Inner Harbor.

As stated previously, untreated hydrostatic test water is discharged using temporary hoses from each parcel of the Facility directly through Discharge Point 004 (Latitude 33°, 45', 31" North, Longitude 118°, 16', 04" West) into Battery 1, Los Angeles Inner Harbor.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Separate effluent limitations are contained in the existing Order for storm water and hydrostatic testing wastewater discharges from Discharge Points 001, 002, 003 and 004. Discharges of storm water and hydrostatic test water are prohibited from being discharged concurrently. Effluent limitations and representative monitoring data from the term of the previous Order are summarized in Table F-2a through F-2g, below.

Table F-2a. Summary of Effluent Limitations (Order No. R4-2002-0029) and SMR Reporting for Discharge Point 001 (Storm Water)

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 6/10/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Conventional Pollutants			
Oil and Grease (mg/L)	10	15	<1.0 – 13
pH (s.u.)	---	---	6.47 – 9.69
TSS (mg/L)	---	---	3.2 – 360
Priority Pollutants			
Antimony (µg/L)	---	---	ND – 2.59
Arsenic (µg/L)	---	---	ND – 17.5
Beryllium (µg/L)	---	---	ND – 0.466
Cadmium (µg/L)	---	---	ND – 0.538
Chromium, Total (µg/L)	---	---	ND – 15
Chromium (III) (µg/L)	---	---	ND – 8.44

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 6/10/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Chromium (VI) (µg/L)	---	---	ND – 0.42
Copper (µg/L)	---	---	13 – 91
Lead (µg/L)	---	---	2.72 – 290
Mercury (µg/L)	---	---	ND – 0.448
Nickel (µg/L)	---	---	2.9 – 19
Selenium (µg/L)	---	---	ND – 5.2
Silver (µg/L)	---	---	ND – 0.505
Thallium (µg/L)	---	---	ND – 3.77
Zinc (µg/L)	---	---	87 – 1,500
Benzene (µg/L)	---	---	ND – 0.41
Chlorodibromome thane (µg/L)	---	---	ND – 0.64
Dichlorobromome thane (µg/L)	---	---	ND – 0.42
Ethylbenzene (µg/L)	---	---	ND – 1
Toluene (µg/L)	---	---	ND – 0.46
Bis(2- Ethylhexyl)Phthal ate (µg/L)	---	---	ND – 21
Non-Conventional Pollutants			
Acute Toxicity (% Survival)	---	1	0 – 100
Phenolic Compounds, Total (mg/L)	---	1.0	ND – 0.1
Conductivity (mS/cm)	---	---	69 – 530
Temperature (°F)	---	---	50 – 61
Total Organic Carbon (mg/L)	---	---	2.3 – 29
Ammonia, Total (as N) (mg/L)	---	---	ND – 1.4
Phenols, Total (mg/L)	---	---	ND – 0.1
Xylenes, Total (mg/L)	---	---	ND – 0.69

“---“ No effluent limitation is applicable.

¹ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

Table F-2b. Summary of Effluent Limitations (Order No. R4-2002-0029) and SMR Reporting for Discharge Point 002 (Storm Water)

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 4/28/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Conventional Pollutants			
Oil and Grease (mg/L)	10	15	ND – 8
pH (s.u.)	---	---	6.23 – 9.73
TSS (mg/L)	---	---	ND – 220
Priority Pollutants			
Arsenic (µg/L)	---	---	ND – 10
Beryllium (µg/L)	---	---	ND – 0.224
Cadmium (µg/L)	---	---	ND – 0.607
Chromium, Total (µg/L)	---	---	1.1 – 11
Chromium (III) (µg/L)	---	---	1.42 – 7.64
Chromium (VI) (µg/L)	---	---	ND – 0.37
Copper (µg/L)	---	---	9.1 – 87
Lead (µg/L)	---	---	2.83 – 250
Mercury (µg/L)	---	---	ND – 0.14
Nickel (µg/L)	---	---	3.1 – 24
Selenium (µg/L)	---	---	ND – 20
Thallium (µg/L)	---	---	ND – 5.05
Zinc (µg/L)	---	---	86 – 1,200
Benzene (µg/L)	---	---	ND – 0.52
Chlorodibromome thane (µg/L)	---	---	ND – 0.6
Dichlorobromome thane (µg/L)	---	---	ND – 0.4
Ethylbenzene (µg/L)	---	---	ND – 0.38
Toluene (µg/L)	---	---	ND – 1,400
Bis(2- Ethylhexyl)Phthal ate (µg/L)	---	---	ND – 24
Non-Conventional Pollutants			
Acute Toxicity (% Survival)	---	1	57 – 100
Phenolic Compounds, Total (mg/L)	---	1.0	<0.1 ²

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 4/28/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Conductivity (mS/cm)	---	---	42 – 600
Temperature (°F)	---	---	52 – 64
Total Organic Carbon (mg/L)	---	---	ND – 33
Ammonia, Total (as N) (mg/L)	---	---	ND – 8.1
Xylenes, Total (mg/L)	---	---	ND – 1.7

“---” No effluent limitation is applicable.

¹ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

² All reported values were non-detect.

Table F-2c. Summary of Effluent Limitations (Order No. R4-2002-0029) and SMR Reporting for Discharge Point 003 (Storm Water)

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 4/28/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Conventional Pollutants			
Oil and Grease (mg/L)	10	15	ND – 11
pH (s.u.)	---	---	6.47 – 9.22
TSS (mg/L)	---	---	4 – 320
Priority Pollutants			
Arsenic (µg/L)	---	---	ND – 9.9
Beryllium (µg/L)	---	---	ND – 0.206
Cadmium (µg/L)	---	---	ND – 2.48
Chromium, Total (µg/L)	---	---	1.74 – 14
Chromium (VI) (µg/L)	---	---	ND – 0.29
Copper (µg/L)	---	---	12 – 97.4
Lead (µg/L)	---	---	2.95 – 140
Mercury (µg/L)	---	---	ND – 0.505
Nickel (µg/L)	---	---	2.6 – 18
Selenium (µg/L)	---	---	ND – 4.69
Silver (µg/L)	---	---	ND – 0.414
Thallium (µg/L)	---	---	ND – 5.21
Zinc (µg/L)	---	---	95 – 1,400

Parameter (units)	Effluent Limitation		Monitoring Data (From 11/10/02 To 4/28/06)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Benzene (µg/L)	---	---	ND – 0.43
Chlorodibromomethane (µg/L)	---	---	ND – 0.58
Dichlorobromomethane (µg/L)	---	---	ND – 0.43
Ethylbenzene (µg/L)	---	---	ND – 0.38
Toluene (µg/L)	---	---	ND – 0.86
Bis(2-Ethylhexyl)Phthalate (µg/L)	---	---	ND – 20
di-n-Butyl Phthalate (µg/L)	---	---	ND – 1.2
Non-Conventional Pollutants			
Acute Toxicity (% Survival)	---	1	70 – 100
Phenolic Compounds, Total (mg/L)	---	1.0	<0.1 ²
Conductivity (mS/cm)	---	---	43 – 9,500
Temperature (°F)	---	---	52 – 59
Total Organic Carbon (mg/L)	---	---	2 – 11
Ammonia, Total (as N) (mg/L)	---	---	ND – 0.54
Xylenes, Total (mg/L)	---	---	ND – 1.1

“---” No effluent limitation is applicable.

¹ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

² All reported values were non-detect.

Table F-2d. Summary of Effluent Limitations (Order No. R4-2002-0029) and SMR Reporting for Discharge Point 004 (Hydrostatic Test Water)

Parameter (units)	Effluent Limitation		Monitoring Data (From 12/9/03 to 6/22/05)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
Conventional Pollutants			
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C) (mg/L)	20	30	All ND ¹
Oil and Grease (mg/L)	10	15	ND – 920

Parameter (units)	Effluent Limitation		Monitoring Data (From 12/9/03 to 6/22/05)
	Average Monthly	Maximum Daily	Range of Reported Concentrations
pH (s.u.)	---	6.5 – 8.5	7.68 – 8.31
TSS (mg/L)	50	75	ND – 13
Priority Pollutants			
Copper (µg/L)	2.9	5.8 / 16 ²	0.11 – 5.1
Lead (µg/L)	---	50	All ND
Mercury (µg/L)	---	2	All ND
Nickel (µg/L)	---	---	ND – 3.3
Zinc (µg/L)	47	95	ND – 0.64
Benzene (µg/L)	---	1.0	All ND
Bromoform (µg/L)	---	---	4.1 – 9.9
Chlorodibromome thane (µg/L)	---	---	13 – 20
Chloroform	---	---	6.5 – 18
Dichlorobromome thane (µg/L)	---	---	14 – 20
Toluene (µg/L)	---	---	ND – 0.63
Naphthalene (µg/L)	---	---	ND – 40
Phenanthrene (µg/L)	---	---	ND – 10
Non-Conventional Pollutants			
Acute Toxicity (% Survival)	---	3	100 ⁴
Chlorine, Total Residual (mg/L)	---	0.1	ND – 1.5
Settleable Solids (ml/L)	0.1	0.3	All ND
Sulfide, Total (mg/L)	---	1.0	All ND
Temperature (°F)	---	100	100
Turbidity (NTU)	50	75	1.4 – 6.8
Xylenes, Total (mg/L)	---	---	ND – 1.4
2-methyl Naphthalene	---	---	ND – 55

“---” No effluent limitation is applicable.

¹ All reported values were non-detect.

² The current Order contains a performance-based interim limitation for copper.

³ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

⁴ Only one monitoring result was reported on June 14, 2005. Therefore, no range is reported.

Order No. R4-2002-0029 also required the Discharger to monitor for the presence of the 17 congeners of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or dioxin) equivalents.

Table F-2e. Summary of the Toxic Equivalency Factors (TEFs) Congeners for 2,3,7,8-TCDD Equivalents and SMR Reporting for Discharge Point 001 (Storm Water)

Congeners	TEFs ¹	4 th Quarter 2003 (µg/L)
2,3,7,8-tetra CDD	1.0	2.4 X10 ⁻⁶
1,2,3,7,8-penta CDD	1.0	5.7 X10 ⁻⁶
1,2,3,4,7,8-hexa CDD	0.1	4.6 X10 ⁻⁶
1,2,3,6,7,8-hexa CDD	0.1	5.3 X10 ⁻⁶
1,2,3,7,8,9-hexa CDD	0.1	6.5 X10 ⁻⁶
1,2,3,4,6,7,8-hepta CDD	0.01	5.5 X10 ⁻⁶
Octa CDD	0.0001	1.13 X10 ⁻⁵
2,3,7,8-tetra CDF	0.1	3.1 X10 ⁻⁶
1,2,3,7,8-penta CDF	0.05	5.3 X10 ⁻⁶
2,3,4,7,8-penta CDF	0.5	4.5 X10 ⁻⁶
1,2,3,4,7,8-hexa CDF	0.1	4.8 X10 ⁻⁶
1,2,3,6,7,8-hexa CDF	0.1	4.7 X10 ⁻⁶
1,2,3,7,8,9-hexa CDF	0.1	6.7 X10 ⁻⁶
2,3,4,6,7,8-hexa CDF	0.1	4.1 X10 ⁻⁶
1,2,3,4,6,7,8-hepta CDF	0.01	5.0 X10 ⁻⁶
1,2,3,4,7,8,9-hepta CDF	0.01	3.8 X10 ⁻⁶
Octa CDF	0.0001	8.3 X10 ⁻⁶

¹ The toxic equivalence (TEQ) is calculated by multiplying the concentration by the appropriate TEFs.

The 4th Quarter 2002 monitoring report showed concentrations for Octa CDD of 0.000000053 (5.3 X10⁻⁸) µg/L and the 1st Quarter 2004 showed 1,2,3,4,6,7,8-Hepta CDD of 1.4 X 10⁻⁵ µg/L, 1,2,3,4,6,7,8-Hepta CDF of 4.8 X10⁻⁶ µg/L, and Octa CDD of 8.4 X10⁻⁵ µg/L.

Table F-2f. Summary of the Toxic Equivalency Factors (TEFs) Congeners for 2,3,7,8-TCDD Equivalents and SMR Reporting for Discharge Point 002 (Storm Water)

Congeners	TEFs ¹	1 st Quarter 2004 (µg/L)
2,3,7,8-tetra CDD	1.0	< 1.5 X10 ⁻⁶
1,2,3,7,8-penta CDD	1.0	< 8.0 X10 ⁻⁷
1,2,3,4,7,8-hexa CDD	0.1	< 1.4 X10 ⁻⁶
1,2,3,6,7,8-hexa CDD	0.1	< 1.2 X10 ⁻⁷
1,2,3,7,8,9-hexa CDD	0.1	< 1.4 X10 ⁻⁶
1,2,3,4,6,7,8-hepta CDD	0.01	3.4 X10 ⁻⁶
Octa CDD	0.0001	2.2 X10 ⁻⁵
2,3,7,8-tetra CDF	0.1	< 1.1 X10 ⁻⁶
1,2,3,7,8-penta CDF	0.05	< 8.0 X10 ⁻⁷
2,3,4,7,8-penta CDF	0.5	< 1.1 X10 ⁻⁶
1,2,3,4,7,8-hexa CDF	0.1	< 9.0 X10 ⁻⁸

Congeners	TEFs ¹	1 st Quarter 2004 (µg/L)
1,2,3,6,7,8-hexa CDF	0.1	< 8.0 X10 ⁻⁷
1,2,3,7,8,9-hexa CDF	0.1	< 1.0 X10 ⁻⁷
2,3,4,6,7,8-hexa CDF	0.1	< 9.0 X10 ⁻⁷
1,2,3,4,6,7,8-hepta CDF	0.01	< 1.1 X10 ⁻⁶
1,2,3,4,7,8,9-hepta CDF	0.01	< 1.6 X10 ⁻⁶
Octa CDF	0.0001	< 2.9 X10 ⁻⁶

¹ The toxic equivalence (TEQ) is calculated by multiplying the concentration by the appropriate TEFs.

Table F-2g. Summary of the Toxic Equivalency Factors (TEFs) Congeners for 2,3,7,8-TCDD Equivalents and SMR Reporting for Discharge Point 003 (Storm Water)

Congeners	TEFs ¹	1 st Quarter 2004 (µg/L)
2,3,7,8-tetra CDD	1.0	< 1.6 X10 ⁻⁶
1,2,3,7,8-penta CDD	1.0	< 1.4 X10 ⁻⁶
1,2,3,4,7,8-hexa CDD	0.1	< 1.4 X10 ⁻⁶
1,2,3,6,7,8-hexa CDD	0.1	< 1.2 X10 ⁻⁶
1,2,3,7,8,9-hexa CDD	0.1	< 1.3 X10 ⁻⁶
1,2,3,4,6,7,8-hepta CDD	0.01	8.2 X10 ⁻⁵
Octa CDD	0.0001	6.2 X10 ⁻⁴
2,3,7,8-tetra CDF	0.1	< 1.3 X10 ⁻⁶
1,2,3,7,8-penta CDF	0.05	< 8.0 X10 ⁻⁷
2,3,4,7,8-penta CDF	0.5	< 1.0 X10 ⁻⁶
1,2,3,4,7,8-hexa CDF	0.1	3.2 X10 ⁻⁶
1,2,3,6,7,8-hexa CDF	0.1	2.8 X10 ⁻⁶
1,2,3,7,8,9-hexa CDF	0.1	< 1.0 X10 ⁻⁶
2,3,4,6,7,8-hexa CDF	0.1	3.3 X10 ⁻⁶
1,2,3,4,6,7,8-hepta CDF	0.01	4.14 X10 ⁻⁵
1,2,3,4,7,8,9-hepta CDF	0.01	<3.0 X10 ⁻⁶
Octa CDF	0.0001	9.81 X10 ⁻⁵

¹ The toxic equivalence (TEQ) is calculated by multiplying the concentration by the appropriate TEFs.

The 4th Quarter 2002 monitoring report showed concentration for Octa CDD of 9.59 X10⁻⁸ µg/L.

The data presented here demonstrates that the detected concentration of 2,3,7,8-TCDD (2.4 X 10⁻⁶ µg/L) in Discharge Point 001 exceeded the CTR water quality based effluent limit of 1.4 X 10⁻⁸ µg/L (Human Health Criteria–Organism only). This constituent was only detected once in the sampling events. Therefore, the Order includes requirements to monitor for the constituent and the congeners in the effluent and the receiving water.

Summaries of wastewater characterization data provided in the ROWD (USEPA Forms 2E and 2F), are provided in Tables F-3a and F-3b.

Table F-3a. Summary of Wastewater Characterization Data (USEPA Form 2E)

Parameter	Units	Reported Maximum Daily Value	Reported Average Daily Value
BOD	mg/L	<2.0	<2.0
	lbs/day	17	9.5
TSS	mg/L	13	11.5
	lbs/day	111	54.7
Total Residual Chlorine	mg/L	<0.1	<0.1
	lbs/day	0.85	0.47
Oil and Grease	mg/L	<5	<5
	lbs/day	42.5	42.5
Discharge Flow	GPD	1,019,214	569,885
pH (range)	s.u.	7.76 – 8.31	N/A
Temperature (winter and summer)	°C	<38	<38

Table 3b. Summary of Wastewater Characterization Data (USEPA Form 2F)

Parameter	Units	Reported Maximum Daily Value (001)	Reported Average Daily Value (001)	Reported Maximum Daily Value (002)	Reported Average Daily Value (002)	Reported Maximum Daily Value (003)	Reported Average Daily Value (003)
Oil and Grease	mg/L	13	4.7	8.0	4.6	11	4.4
TSS	mg/L	150	53	140	33	160	48
pH	s.u.	7.89	6.47 (min.)	9.55	6.5 (min.)	9.22	6.47 (min.)
Phenolics	mg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Ammonia	mg/L	1.4	0.5	8.1	0.9	0.54	0.46
Total Organic Carbon (TOC)	mg/L	29	11	33	7	10.0	5.6
Toluene	µg/L	1.0	0.57	1.4	0.7	<1.0	0.6
Total Xylenes	µg/L	0.69	0.61	1.7	0.8	1.1	0.7
Arsenic	µg/L	17.5	6.6	<15	4.1	<15	4.3
Chromium	µg/L	25	5.5	<25	12	<25	12
Total Chromium	µg/L	15	6.54	8.1	4.8	11.6	5.0
Copper	µg/L	81.7	41.9	87	29	97.4	30.1
Lead	µg/L	290	69	250	43	300	45
Mercury	mg/L	0.0005	0.0002	<0.0005	0.0002	0.0005	0.002
Nickel	µg/L	11	9.0	10.3	8.0	12.6	6.2
Selenium	µg/L	15	4.8	<15	5	<15	4
Silver	µg/L	5	1.4	<5	1.4	<5	1
Zinc	µg/L	1,500	577	1,200	478	1,400	437
Benzene	µg/L	0.5	0.4	0.5	0.4	<0.5	0.4
Ethylbenzene	µg/L	1	0.4	<1	0.4	<0.5	0.4
Specific Conductance	mS/cm	500	189	600	175	9,500	655

D. Compliance Summary

Data submitted to the Regional Water Board indicate that the Discharger has exceeded existing permit limitations as outlined in the tables below:

Table F-4a. Summary of Compliance History Discharge Point 001 (Storm Water)

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
1/10/2005	1 st Quarter 2005	Monthly Average	Oil and Grease	13	10	mgL
2/12/2003	1 st Quarter 2003	Single Test	Acute Toxicity	47 ¹	²	% Survival
2/12/2003	1 st Quarter 2003	Single Test	Acute Toxicity	20 ¹	²	% Survival
1/2/2004	1 st Quarter 2004	Single Test	Acute Toxicity	30 ¹	²	% Survival
2/23/2004	1 st Quarter 2004	Single Test	Acute Toxicity	65 ¹	²	% Survival
10/20/2004	4 th Quarter 2004	Single Test	Acute Toxicity	0 ¹	²	% Survival
10/27/2004	4 th Quarter 2004	Single Test	Acute Toxicity	40 ¹	²	% Survival
12/6/2004	4 th Quarter 2004	Single Test	Acute Toxicity	10 ¹	²	% Survival
12/28/2004	4 th Quarter 2004	Single Test	Acute Toxicity	65 ¹	²	% Survival
1/7/2005	1 st Quarter 2005	Single Test	Acute Toxicity	0 ¹	²	% Survival

¹ Acute bioassay testing is performed on each discharge event (48 hour test with *Pimephales promelas*). Ultramar is currently performing a toxicity reduction evaluation (TRE) for Discharge Point 001, as per Section IV.3 of the MRP.

² Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

Table F-4b. Summary of Compliance History Discharge Point 002 (Storm Water)

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
11/10/2002	4 th Quarter 2002	Single Test	Acute Toxicity	67 ²	¹	% Survival
2/12/2003	1 st Quarter 2003	Single Test	Acute Toxicity	57 ²	¹	% Survival

¹ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

² Acute bioassay testing is performed on each discharge event (48 hour test with *Pimephales promelas*). Ultramar is currently performing a toxicity reduction evaluation (TRE) for Discharge Point 002, as per Section IV.3 of the MRP.

Table F-4c. Summary of Compliance History Discharge Point 003 (Storm Water)

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
1/10/2005	1/10/2005	Monthly Average	Oil and Grease	11	10	mg/L

Table F-4d. Summary of Compliance History Discharge Points 004 (Hydrostatic Test Water)

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
6/14/2005	2 nd Quarter 2005	Daily Maximum	Oil and Grease	920	15	mg/L
6/14/2005	2 nd Quarter 2005	Monthly Average	Oil and Grease	920	10	mg/L
6/14/2005	2 nd Quarter 2005	Daily Maximum	Chlorine, Total Residual	1.5	0.1	mg/L

E. Planned Changes

The permit ROWD does not outline any planned changes at the facility. However, based on the site visit conducted on January 18, 2007, discharges through Discharge Points 001 and 002 ceased in 2006 and to the present. Storm water collected from Parcels 1 and 2 is pumped to the Slop Tanks in Parcel 3 and then directed to Ultramar’s Wilmington Refinery for treatment. From the Refinery, the treated storm water is directed to the County Sanitation District of Los Angeles Waste Water Treatment Plant. Piping has been installed in Parcel 3 to direct all collected storm water from Parcel 3 to the Refinery for treatment. The Discharger wishes to retain the authority to continue to discharge storm water through Discharge Points 001 and 002 if necessary, and if all applicable effluent limitations are met.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provision of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

- 1. Water Quality Control Plans.** The Regional Water Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* in the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to Los Angeles Inner Harbor are as follows:

Table F-5. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Uses
001, 002, 003, and 004	Los Angeles Inner Harbor (via storm drain)	<p><u>Existing:</u> Industrial Service Supply (IND); Navigation (NAV); Non-Contact Water Recreation (REC-2); Preservation or Rare, Threatened or Endangered Species (RARE); Commercial and Sport Fishing (COMM); and Marine Habitat (MAR).</p> <p><u>Potential:</u> Contact Water Recreation (REC-1) and Shellfish Harvesting (SHELL).</p>

The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bay and Estuaries Policy), adopted by the State Water Resources Control Board (State Board) as Resolution No. 95-84 on November 16, 1995, states that:

“It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge.”

While the discharge from the Ultramar, Inc, Wilmington Marine Terminal, Berth 164 discharges into the Los Angeles Inner Harbor, within the enclosed bay, the wastewater is comprised primarily of storm water and hydrostatic test water, and therefore is not considered to be industrial process wastewater. Nonetheless, this Order contains provisions necessary to protect all beneficial uses of the receiving water.

- 2. Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board with the adoption of Resolution No. 2004-022, *Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of “Aquatic Life”*. The ammonia Basin Plan amendment was approved by the State Water Board on July 22, 2004, Office of Administrative Law on September 15, 2004, and by USEPA on May 19, 2005. The amendment revised the Basin

Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with USEPA's "Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives."

For inland surface waters not characteristic of freshwater (including enclosed bays, estuaries, and wetlands), the proposed objectives are a 4-day average concentration of unionized ammonia of 0.035 mg/L, and a one-hour average concentration of unionized ammonia of 0.233 mg/L. The proposed objectives are fixed concentrations of unionized ammonia, independent of pH, temperature, or salinity. The proposed amendment includes an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limits. The proposed amendment also simplifies the implementation procedures for translating ammonia objectives into effluent limits in situations where a mixing zone has been authorized by the Regional Board. Finally, the proposed amendment revises the implementation procedure for determining saltwater, brackish or freshwater conditions, to be consistent with the proposed objectives. The proposed objectives will apply only to inland surface waters not characteristic of freshwater (including enclosed bays, estuaries and wetlands) and do not impact the Ammonia Water Quality Objectives for ocean waters contained in the California Ocean Plan.

No limitation for ammonia is included in this Order because there is insufficient monitoring data to conduct reasonable potential analysis (RPA). The Order includes requirements for monitoring of ammonia for both effluent and receiving waters.

3. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. In the event of integrity testing of new or rehabilitated pipes and petroleum storage tanks, thermal waste may be discharged and as a result, temperature effluent limitations have been applied to discharges of hydrostatic test water. The existing discharge shall not cause a surface water temperature rise greater than 5° F above the natural temperature of the receiving waters at any time or place. Requirements of the Order implement the Thermal Plan.
4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
5. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority

pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

- 6. Compliance Schedule and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 17, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Los Angeles Region Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. The Order includes compliance schedules and interim effluent limitations.
- 7. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- 8. Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68.16.

The Los Angeles Inner Harbor is impaired and appears on the 303(d) list. The water body is impaired for DDT, PCBs, benthic community effects, beach closures, and sediment toxicity. Reasonable potential was not triggered for the aforementioned impairments of Los Angeles Inner Harbor. The effluent limitations in this Order for constituents with reasonable potential are established to protect the beneficial uses of Los Angeles Inner Harbor and to ensure the discharge does not degrade its water quality. The effluent limitations are established based on the most stringent of applicable water quality criteria. In addition, the Order requires the Discharger to continue to monitor the effluent and receiving water, to use in a Reasonable Potential Analysis (RPA) of all priority pollutants. Further, Special Provision VI.C.b of the Order contains a reopener provision, allowing revision of effluent limitations for toxic pollutants based on the results of an RPA.

The discharge from Ultramar, Inc., Wilmington Marine Terminal, Berth 164 is not a new discharge. The discharges from the Facility occur following storm events and when new pipes are being tested for integrity. Storm water is treated and tested prior to discharge to ensure the effluent limitations are met.

This NPDES permit includes effluent limitations to ensure the discharge does not adversely impact the beneficial uses of the Los Angeles Inner Harbor or degrade water quality. The inclusion of effluent limitations and prohibitions in the NPDES permit, which ensure that any discharge would not result in the lowering of water quality, coupled with the fact that the discharge occurs infrequently and is temporally limited, support the conclusion that no degradation will arise as a result of reissuing this permit. The issuance of this permit; therefore, is consistent with the State's Antidegradation Policy.

- 9. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations¹ 40 C.F.R. § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. The reissued permit is more stringent than the previous permit.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

On November 20, 2006, USEPA gave final approval to California's 2006 Section 303(d) List of Water Quality Limited Segments. This list was approved by the State Water Board during a Board Meeting on October 25, 2006 (Resolution 2006-0079). Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2006 303(d) list and have been scheduled for TMDL development.

The 2006 State Water Board's California 303(d) List classifies the Los Angeles Inner Harbor as impaired. The pollutants of concern include beach closures, benthic community effects, DDT, PCBs, and sediment toxicity. To date, a draft TMDL entitled *Dominguez Channel and the Los Angeles and Long Beach Harbors, Toxic and Metal TMDLS* (9/11/06) is being considered. Therefore, no conditions in the proposed Order are based on TMDLs.

E. Other Plans, Polices and Regulations

Not Applicable.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 C.F.R. § 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. § 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

Pollutants of Concern

Ultramar, Inc. operates a terminal that serves as a bulk storage and distribution facility for Ultramar's Wilmington refinery. Wastewater discharged from the facility is comprised of storm water runoff and hydrostatic test water.

Pollutants typically associated with oil storage facilities include but are not limited to benzene, ethylbenzene, toluene, xylene, phenol, TSS, settleable solids, sulfides, TOC, and total petroleum hydrocarbons (TPHs), and oil and grease. In addition, some metals which are typically present at these facilities include arsenic, chromium (VI), total chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc because they may be components of materials stored in the tanks on-site. City-supplied water is used as hydrostatic test water; therefore, parameters that may be present in the discharge include chlorine and chlorine by-products and solids. Thus, these pollutants may be present in the discharge of storm water and hydrostatic test water and are considered pollutants of concern.

Effluent limitations for storm water discharges from Parcels 1 and 2, Parcel 3, and Parcels 4 and 5 in the previous Order were established for oil and grease and phenolic compounds and are therefore, pollutants of concern.

Effluent limitations for hydrostatic test water discharges from Parcels 1 and 2, Parcel 3, and Parcels 4 and 5 in the previous Order were established for pH, temperature, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, chlorine residual, benzene, copper, lead, mercury and zinc and are therefore, pollutants of concern.

Discharges of storm water from this type of facility and hydrostatic test water may also contribute to acute toxicity. Therefore, toxicity, an indicator of the presence of toxic pollutants, is also considered a pollutant of concern.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 C.F.R. § 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitations on a case-by-case basis, limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment.

Due to the intermittent, and infrequent nature of the discharge, and since the volume of the discharge is dependent on rainfall, mass-based effluent limitations have not been developed.

Further, due to the intermittent, and infrequent nature of the discharge, no monthly average limitations are established for storm water and hydrostatic test water discharges. In addition, the discharge of hydrostatic test water occurred twice (2003 and 2005) during the past five years.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and are consistent with the requirements set for other discharges regulated by NPDES permits to the Los Angeles Inner Harbor.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of the Code of Federal Regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in section 125.3.

2. Applicable Technology-Based Effluent Limitations

ELGS have not been developed for the discharges from the petroleum bulk storage and distribution facilities. Thus, no effluent limitations based on ELGS are prescribed in this permit.

The previous Order states that effluent limitations for pH, temperature, suspended solids, settleable solids, oil and grease, sulfides, and chlorine residual are technology-based.

The previous Order did not indicate the basis for the limitations for phenolic compounds (storm water), BOD or turbidity (hydrostatic test water) is technology-based; however, it is assumed

that the existing limitations are technology-based, as these parameters are typically used to monitor treatment performance at similar facilities.

Effluent limitations for pH, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, phenolic compounds, and chlorine residual for discharges of storm water and hydrostatic test water continue to be appropriate for this facility. Therefore, pursuant to State and federal anti-backsliding regulations, Order No. R4-2007-0039 carries over effluent limitations for pH, TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, phenolic compounds, and chlorine residual as technology-based effluent limitations based on BPJ in accordance with section 125.3. BPJ is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limits are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for BPJ limits is found under section 401(a)(1) of the Clean Water Act and under 40 CFR 125.3. Therefore, the limitations for these pollutants were determined on a case-by-case basis and are similar to those established for similar facilities within the Los Angeles Region.

The effluent limitation for temperature has been revised to reflect new information available regarding protection of aquatic organisms (a detailed discussion is provided in section IV.C.5).

Table F-6. Summary of Technology-based Effluent Limitations: Discharge Points 001, 002, and 003 (Storm Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Oil and Grease	mg/L	---	---	15	---	---
Non-Conventional Pollutants						
Phenolic Compounds, Total	mg/L	---	---	1.0	---	---

“---” No effluent limitation is applicable.

Table F-7. Summary of Technology-based Effluent Limitations: Discharge Point 004 (Hydrostatic Test Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day 20°C)	mg/L	---	---	30	---	---
Oil and Grease	mg/L	---	---	15	---	---
pH	pH Units	---	---	---	6.5	8.5
Total Suspended Solids (TSS)	mg/L	---	---	75	---	---
Non-Conventional Pollutants						
Chlorine, Total Residual	mg/L	---	---	0.1	---	---
Settleable Solids	ml/L	---	---	0.3	---	---
Sulfides	mg/L	---	---	1.0	---	---
Temperature	°F	---	---	100	---	---
Turbidity	NTU	---	---	75	---	---

“---” No effluent limitation is applicable.

The previous Order required the Discharger to develop and implement a *Storm Water Pollution Prevention Plan* (SWPPP). Order No. R4-2007-0039 requires the Discharger to update and continue to implement a SWPPP, consistent with Attachment G. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the storm drain. At a minimum, the management practices should ensure storm water contact with raw materials, chemicals, debris, and other potential sources of pollutants is minimized. Because storm water discharges occurs at the Facility, this Order will require the Discharger to update and continue to implement their SWPPP.

The Discharger is also required to develop and implement a Best Management Practices Plan (BMP Plan) that entails site-specific plans and procedures implemented and/or to be implemented to prevent additional pollutants from being discharged to waters of the State. To reduce the duplicate efforts of a SWPPP and BMP Plan, the Discharger may include the requirements of a BMP Plan, consistent with the requirements of the current permit in the updated SWPPP and is not required to develop a separate BMP Plan document. Pursuant to 40 C.F.R. § 122.44(k), the Regional Water Board will require the Discharger to develop and implement a BMP Plan, which may be included in the SWPPP. The purpose of the best management practices (BMPs) will be to establish site-specific procedures that will ensure proper operation and maintenance of equipment, collection systems, and storage areas, to ensure that unauthorized non-storm water discharges (i.e., non-permitted process waters, spills, other sources of pollutants) do not occur at the Facility.

This Order will require the Discharger to update and continue to implement their Spill Prevention Control and Countermeasures (SPCC) Plan.

The combination of the SWPPP, BMPs, SPCC plan, and previous Order limitations based on BPJ will serve as the equivalent to technology-based effluent limitations, in order to carry out the purposes and intent of the CWA.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 C.F.R. § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. § 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 C.F.R. § 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs are contained in the Technical Support Document (TSD) for storm water discharges and in the SIP for non-storm water discharges (i.e., hydrostatic test water). However, the Section 3.3.8 *Effluent Characterization of Specific Chemicals*, Step 4, in the first full paragraph on P. 64 of the TSD reads “The statistical approach shown in Box 3-2 or an analogous approach developed by a regulatory authority can be used to determine the reasonable potential”. The Regional Water Board has determined that the procedures for determining reasonable potential and calculating WQBELs contained in the SIP for non-storm water discharges may be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. Hence, in this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for storm water discharges through Discharge Points 001, 002, and 003 and for hydrostatic test water discharges through Discharge Point 004.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Los Angeles Inner Harbor are summarized in Section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to the Los Angeles Inner Harbor. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3): freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The CTR criteria for salt water or human health for consumption of organisms only, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Los Angeles Inner Harbor, a water of the United States in the vicinity of the discharge. The Regional Water Board determined that because the discharge is to the Los Angeles Inner Harbor, saltwater CTR criteria are applicable.

Table F-8 summarizes the applicable water quality criteria for priority pollutants reported in detectable concentrations in the effluent through Discharge Points 001, 002, 003, and 004 (storm water and hydrostatic test water) or receiving water. These criteria were used in conducting the RPA for this Order.

Table F-8. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria µg/L	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	4,300			---	---		4,300
2	Arsenic	36			69.00	36.00		---
3	Beryllium	NC			---	---		---
4	Cadmium	9.36			42.25	9.36		---
5a	Chromium III	NC			---	---		---
5b	Chromium VI	50.35			1107.75	50.35		---
6	Copper	3.73			5.78	3.73		---
7	Lead	8.52			220.82	8.52		---
8	Mercury	0.051			---	---		0.051
9	Nickel	8.28			74.75	8.28		4,600
10	Selenium	71.14			290.58	71.14		---
11	Silver	2.24			2.24	---		---
12	Thallium	6.30			---	---		6.3
13	Zinc	85.62			95.14	85.62		---
15	Asbestos	NC			---	---		---
19	Benzene	71			---	---		71
23	Chlorodibromomethane	34			---	---		34
27	Dichlorobromomethane	46			---	---		46
33	Ethylbenzene	29,000			---	---		29,000
35	Methyl Chloride	NC		N/A	---	---		---
36	Methylene Chloride	1,600			---	---		1,600
39	Toluene	200,000			---	---		200,000
58	Anthracene	110,000			---	---		110,000
60	Benzo(a)Anthracene	0.0490			---	---		0.049
61	Benzo(a)Pyrene	0.0490			---	---		0.049
62	Benzo(b)Fluoranthene	0.0490			---	---		0.049
64	Benzo(k)Fluoranthene	0.0490			---	---		0.049
68	Bis (2-Ethylhexyl)Phthalate	5.9			---	---		5.9
73	Chrysene	0.0490			---	---		0.049
77	1,4-Dichlorobenzene	2,600			---	---		2,600
81	Di-N-Butyl Phthalate	12,000			---	---		12,000
86	Fluranthene	370			---	---		370
87	Fluorene	14,000			---	---		14,000
94	Napthalene	NC			---	---		---
99	Phenanthrene	NC			---	---		---
100	Pyrene	11,000			---	---		11,000
106	Delta-BHC	NC			---	---		---

“---” No applicable water quality criteria.

NC = No Criteria available.

N/A indicates that the receiving water is not characterized as freshwater, and that the water quality criteria for the protection of human health for the consumption of water and organisms are not applicable.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

- 1) Trigger 1 – If the MEC \geq C, a limit is needed.
- 2) Trigger 2 – If the background concentration (B) $>$ C and the pollutant is detected in the effluent, a limit is needed.
- 3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

No limitations for 2,3,7,8-TCDD congeners are included in the Order because there is insufficient monitoring data to conduct the RPA. The Order includes requirements for monitoring of 2,3,7,8-TCDD congeners for both effluent and receiving waters.

Based on the RPA results for Discharge Point 001, there is reasonable potential for arsenic, copper, lead, mercury, nickel, silver, thallium, zinc, and bis(2-ethylhexyl)phthalate.

Based on the RPA results for Discharge Point 002, there is reasonable potential for arsenic, copper, lead, mercury, nickel, thallium, zinc, and bis(2-ethylhexyl)phthalate.

Based on the RPA results for Discharge Point 003, there is reasonable potential for arsenic, copper, lead, mercury, nickel, silver, thallium, zinc, and bis(2-ethylhexyl)phthalate.

Two sets of hydrostatic test water data are available for ten priority pollutants. Based on the RPA for hydrostatic discharges through Discharge Point 004, copper demonstrated reasonable potential. Further, available data representative for Discharge Point 004 for lead, mercury, and zinc indicated there is no reasonable potential; therefore, effluent limitations for these pollutants have been removed from this Order.

Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

Table F-9a. Summary of Reasonable Potential Analysis for Discharge Point 001 (Storm Water)

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	4,300	2.59	2.31	No	MEC<C & B<C
2	Arsenic	36	17.5	46.8	Yes	B>C; pollutant detected in effluent
3	Beryllium	NC	0.466	0.891	No	No Criteria
4	Cadmium	9.36	0.538	0.507	No	MEC<C & B<C
5a	Chromium III	NC	8.44	15.6	No	No Criteria
5b	Chromium VI	50.35	25	<20	No	MEC<C & B<C
6	Copper	3.73	91	25.4	Yes	MEC>C
7	Lead	8.52	290	5.2	Yes	MEC>C
8	Mercury	0.051	0.5	<0.2	Yes	MEC>C
9	Nickel	8.28	19	2.85	Yes	MEC>C
10	Selenium	71.14	15	44.8	No	MEC<C & B<C
11	Silver	2.24	5	2.75	Yes	MEC>C
12	Thallium	6.30	3.77	6.62	Yes	B>C; pollutant detected in effluent
13	Zinc	85.62	1500	71	Yes	MEC>C
15	Asbestos	NC	11	<0.2	No	No Criteria
19	Benzene	71	0.52	<0.5	No	MEC<C & B<C
23	Chlorodibromomethane	34	0.64	<1	No	MEC<C & B<C
27	Dichlorobromomethane	46	0.42	<1	No	MEC<C & B<C
33	Ethylbenzene	29,000	1	<0.5	No	MEC<C & B<C
35	Methyl Chloride	NC	<1	1.2	No	No Criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
36	Methylene Chloride	1,600	<2	1.8	No	MEC<C & B<C
39	Toluene	200,000	0.46	0.18	No	MEC<C & B<C
58	Anthracene	110,000	<5	0.05	No	MEC<C & B<C
60	Benzo(a)Anthracene	0.0490	<5	0.07	No	B>C ²
61	Benzo(a)Pyrene	0.0490	<5	0.036	No	MEC<C & B<C
62	Benzo(b)Fluoranthene	0.0490	<5	0.043	No	MEC<C & B<C
64	Benzo(k)Fluoranthene	0.0490	<5	0.025	No	MEC<C & B<C
68	Bis (2-Ethylhexyl)Phthalate	5.9	21	<5	Yes	MEC>C
73	Chrysene	0.0490	<5	0.096	No	B>C ²
77	1,4-Dichlorobenzene	2600	<1	0.46	No	MEC<C & B<C
86	Fluranthene	370	<1	0.4	No	MEC<C & B<C
87	Fluorene	14,000	<5	0.16	No	MEC<C & B<C
99	Phenanthrene	NC	<5	0.22	No	No Criteria
100	Pyrene	11,000	<5	0.2	No	MEC<C & B<C
106	Delta-BHC	NC	<0.01	0.028	No	No Criteria

NC = No criteria is available.

Table F-9b. Summary Reasonable Potential Analysis for Discharge Point 002 (Storm Water)

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	4,300	<2	2.31	No	MEC<C & B<C
2	Arsenic	36	10	46.8	Yes	B>C; pollutant detected in effluent
3	Beryllium	NC	0.224	0.891	No	No Criteria
4	Cadmium	9.36	0.607	0.507	No	MEC<C & B<C
5a	Chromium III	NC	7.64	15.6	No	No Criteria
5b	Chromium VI	50.35	0.37	<20	No	MEC<C & B<C
6	Copper	3.73	87	25.4	Yes	MEC>C
7	Lead	8.52	250	5.2	Yes	MEC>C
8	Mercury	0.051	0.14	<0.2	Yes	MEC>C
9	Nickel	8.28	24	2.85	Yes	MEC>C
10	Selenium	71.14	20	44.8	No	MEC<C & B<C
11	Silver	2.24	<1	2.75	No	B>C; pollutant ND in effluent
12	Thallium	6.30	5.05	6.62	Yes	B>C; pollutant detected in effluent
13	Zinc	85.62	1200	71	Yes	MEC>C
15	Asbestos	NC	21	<0.2	No	No Criteria
19	Benzene	71	0.52	<0.5	No	MEC<C & B<C
23	Chlorodibromomethane	34	0.60	<1	No	MEC<C & B<C
27	Dichlorobromomethane	46	0.40	<1	No	MEC<C & B<C
33	Ethylbenzene	29,000	0.38	<0.5	No	MEC<C & B<C
35	Methyl Chloride	NC	<1	1.2	No	No Criteria
36	Methylene Chloride	1,600	<2	1.8	No	MEC<C & B<C
39	Toluene	200,000	1400	0.18	No	MEC<C & B<C
58	Anthracene	110,000	<5	0.05	No	MEC<C & B<C
60	Benzo(a)Anthracene	0.0490	<5	0.07	No	B>C; pollutant ND in effluent

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
61	Benzo(a)Pyrene	0.0490	<5	0.036	No	MEC<C & B<C
62	Benzo(b)Fluoranthene	0.0490	<5	0.043	No	MEC<C & B<C
64	Benzo(k)Fluoranthene	0.0490	<5	0.025	No	MEC<C & B<C
68	Bis (2-Ethylhexyl)Phthalate	5.9	24	<5	Yes	MEC>C
73	Chrysene	0.0490	<5	0.096	No	B>C; pollutant ND in effluent
77	1,4-Dichlorobenzene	2,600	<1	0.46	No	MEC<C & B<C
86	Fluranthene	370	<1	0.4	No	MEC<C & B<C
87	Fluorene	14,000	<5	0.16	No	MEC<C & B<C
99	Phenanthrene	NC	<5	0.22	No	No Criteria
100	Pyrene	11,000	<5	0.2	No	MEC<C & B<C
106	Delta-BHC	NC	<0.01	0.028	No	No Criteria

NC = No criteria is available. ND = non-detect

Table F-9c. Summary Reasonable Potential Analysis for Discharge Point 003 (Storm Water)

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
1	Antimony	4,300	<2	2.31	No	MEC<C & B<C
2	Arsenic	36	9.9	46.8	Yes	B>C ³
3	Beryllium	NC	0.206	0.891	No	No Criteria
4	Cadmium	9.36	2.48	0.507	No	MEC<C & B<C
5a	Chromium III	NC	3.69	15.6	No	No Criteria
5b	Chromium VI	50.35	0.29	<20	No	MEC<C & B<C
6	Copper	3.73	97.4	25.4	Yes	MEC>C
7	Lead	8.52	300	5.2	Yes	MEC>C
8	Mercury	0.051	0.505	<0.2	Yes	MEC>C

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
9	Nickel	8.28	18	2.85	Yes	MEC>C
10	Selenium	71.14	4.69	44.8	No	MEC<C & B<C
11	Silver	2.24	0.414	2.75	Yes	B>C; pollutant detected in effluent
12	Thallium	6.30	5.21	6.62	Yes	B>C; pollutant detected in effluent
13	Zinc	85.62	1400	71	Yes	MEC>C
19	Benzene	71	0.43	<0.5	No	MEC<C & B<C
23	Chlorodibromomethane	34	0.58	<1	No	MEC<C & B<C
27	Dichlorobromomethane	46	0.43	<1	No	MEC<C & B<C
35	Methyl Chloride	NC	<1	1.2	No	No Criteria
36	Methylene Chloride	1,600	<2	1.8	No	MEC<C & B<C
39	Toluene	200,000	0.86	0.18	No	MEC<C & B<C
58	Anthracene	110,000	<5	0.05	No	MEC<C & B<C
60	Benzo(a)Anthracene	0.0490	<5	0.07	No	B>C; pollutant ND in effluent
61	Benzo(a)Pyrene	0.0490	<5	0.036	No	MEC<C & B<C
62	Benzo(b)Fluoranthene	0.0490	<5	0.043	No	MEC<C & B<C
64	Benzo(k)Fluoranthene	0.0490	<5	0.025	No	MEC<C & B<C
68	Bis (2-Ethylhexyl)Phthalate	5.9	20	<5	Yes	MEC>C
73	Chrysene	0.0490	<5	0.096	No	B>C; pollutant ND in effluent
77	1,4-Dichlorobenzene	2,600	<1	0.46	No	MEC<C & B<C
81	Di-n-Butyl Phthalate	12,000	1.2	<5	No	MEC<C & B<C
86	Fluranthene	370	<1	0.4	No	MEC<C & B<C
87	Fluorene	14,000	<5	0.16	No	MEC<C & B<C
99	Phenanthrene	NC	<5	0.22	No	No Criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
100	Pyrene	11,000	<5	0.2	No	MEC<C & B<C
106	Delta-BHC	NC	<0.01	0.028	No	No Criteria

NC = No criteria is available.

Table F-9d. Summary Reasonable Potential Analysis for Discharge Point 004 (Hydrostatic Test Water)

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L		
2	Arsenic	36	2.6	2.31	No	MEC<C & B<C
6	Copper	3.73	5.1	25.4	Yes	MEC>C
9	Nickel	8.28	3.3	2.85	No	MEC<C & B<C
13	Zinc	85.62	0.64	71	No	MEC<C & B<C
20	Bromoform	360	9.9	<1	No	MEC<C & B<C
23	Chlorodibromomethane	34	20	<1	No	MEC<C & B<C
26	Chloroform	NC	18	<1	No	No Criteria
27	Dichlorobromomethane	46	20	<1	No	MEC<C & B<C
39	Toluene	200,000	0.63	0.18	No	MEC<C & B<C
94	Naphthalene	NC	40	<0.6	No	No Criteria
99	Phenanthrene	NC	10	0.22	No	No Criteria

NC = No criteria is available.

4. WQBEL Calculations

- a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:
 - (1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
 - (2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

- (3) Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.
- b. Water quality based effluent limits (final) for lead is based on monitoring results and following the procedure based on the steady-state model, available in Section 1.4 of the SIP.
 - c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this tentative Order, no dilution credit is being allowed. However, in accordance with the reopener provision in section VI.C.1.e in this Order, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.
 - d. WQBELs Calculation Example

Using nickel as an example, the following demonstrates how WQBELs were established for this Order for storm water discharges through Discharge Point 001. The tables in Attachment I summarize the development and calculation of all WQBELs for this Order using the process described below.

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria determine the effluent concentration allowance (ECA) using the following steady state equation:

$$\begin{aligned} \text{ECA} &= C + D(C-B) && \text{when } C > B, \text{ and} \\ \text{ECA} &= C && \text{when } C \# B, \end{aligned}$$

- Where
- C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order no hardness value was necessary for development of criteria since the applicable criteria are not hardness-dependant, and a pH of 6.47 was used for pH-dependant criteria.
 - D = The dilution credit, and
 - B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

$$\text{ECA} = C$$

For nickel in Discharge Point 001, the applicable water quality criteria for the protection of aquatic life are (reference Table F-8):

$$ECA_{acute} = 74.75 \mu\text{g/L}$$

$$ECA_{chronic} = 8.28 \mu\text{g/L}$$

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{acute} = ECA_{acute} \times \text{Multiplier}_{acute\ 99}$$

$$LTA_{chronic} = ECA_{chronic} \times \text{Multiplier}_{chronic\ 99}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For nickel, the following data was used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier _{acute 99}	ECA Multiplier _{chronic 99}
15	0.46	0.40	0.60

$$LTA_{acute} = 74.75 \mu\text{g/L} \times 0.40 = 29.61 \mu\text{g/L}$$

$$LTA_{chronic} = 8.28 \mu\text{g/L} \times 0.60 = 5.00 \mu\text{g/L}$$

Step 3: Select the most limiting (lowest) of the LTA.

$$LTA = \text{most limiting of } LTA_{acute} \text{ or } LTA_{chronic}$$

For lead, the most limiting LTA was the $LTA_{chronic}$

$$LTA = 5.00 \mu\text{g/L}$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times \text{AMEL}_{multiplier\ 95}$$

$$MDEL_{\text{aquatic life}} = LTA \times MDEL_{\text{multiplier 99}}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4) per month, the default number of samples to be used is four (4).

For nickel, the following data was used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}
4	1.29	2.52	1.42

$$AMEL_{\text{aquatic life}} = 5.00 \times 1.42 = 7.09 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = 5.00 \times 2.52 = 12.62 \mu\text{g/L}$$

Calculation of human health AMEL and MDEL:

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{\text{human health}}$

$$AMEL_{\text{human health}} = ECA_{\text{human health}}$$

For nickel:

$$ECA_{\text{human health}} = 4,600 \mu\text{g/L}$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the Multiplier_{MDEL} to the Multiplier_{AMEL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{\text{human health}} = AMEL_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

For nickel, the following data were used to develop the $MDEL_{\text{human health}}$:

No. of Samples Per Month	CV	Multiplier _{MDEL 99}	Multiplier _{AMEL 95}	Ratio
4	0.46	2.42	1.42	1.78

$$MDEL_{\text{human health}} = 4,600 \mu\text{g/L} \times 1.78 = 8192 \mu\text{g/L}$$

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For, nickel:

AMEL _{aquatic life}	MDEL _{aquatic life}	AMEL _{human health}	MDEL _{human health}
7.09 µg/L	12.62 µg/L	4,600 µg/L	8,192 µg/L

The lowest (most restrictive) effluent limits were incorporated into this Order for all discharge points (storm water and hydrostatic test water).

For arsenic, copper, lead, silver, and zinc, there are no human health criteria; therefore, the AMEL and MDEL based on aquatic life criteria are established as the WQBELs. For mercury, thallium, and bis(2-ethylhexyl)phthalate, there are no aquatic life criteria; therefore, the AMEL and MDEL based on the human health criteria are established as the WQBELs. For nickel, there are both human health and aquatic life criteria, with the aquatic life criteria being the most stringent therefore, the AMEL and MDEL are based on aquatic life criteria. These limits will be protective of aquatic life.

5. WQBELs Based on Basin Plan Objectives

The Basin Plan states that the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharged. Based on the requirements of the Basin Plan an instantaneous minimum limitation of 6.5 and an instantaneous maximum limitation of 8.5 for pH are included in the proposed permit. This limitation has been carried over from the previous Order for the hydrostatic test water and has been added for the storm water discharges. In addition, the Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan, a maximum effluent temperature limitation of 86 °F is included in the proposed permit. The previous Order included an effluent limitation of 100°F for hydrostatic test water (Discharge Point 004); therefore, this limit has been revised to comply with the Thermal Plan. Further, a new temperature limitation has been included for the storm water discharges from Discharge Points 001, 002, and 003.

Ammonia exists in two forms - un-ionized ammonia (NH3) and the ammonium ion (NH4). They are both toxic, but the neutral, un-ionized ammonia species (NH3) is much more toxic. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors.

No limitation for ammonia is included in this Order because there is insufficient monitoring data to conduct reasonable potential analysis (RPA). The Order includes requirements for monitoring of ammonia for both effluent and receiving waters.

6. Final WQBELs

Summaries of the WQBELs are described in Tables F-10a through F-10d.

Table F-10a. Summary of Water Quality-based Effluent Limitations: Discharge Point 001 (Storm Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
pH	---	---	---	---	6.5	8.5
Priority Pollutants						
Arsenic, Total Recoverable	µg/L	---	---	65.6	---	---
Copper, Total Recoverable	µg/L	---	---	5.8	---	---
Lead, Total Recoverable	µg/L	---	---	15.8	---	---
Mercury, Total Recoverable	µg/L	---	---	0.10	---	---
Nickel, Total Recoverable	µg/L	---	---	12.6	---	---
Silver, Total Recoverable	µg/L	---	---	2.2	---	---
Thallium, Total Recoverable	µg/L	---	---	12.6	---	---
Zinc, Total Recoverable	µg/L	---	---	95.1	---	---
Bis(2-ethylhexyl)phthalate	µg/L	---	---	11.8	---	---
Non-Conventional Pollutants						
Temperature	°F	---	---	---	---	86

“---” No effluent limitation is applicable.

Table F-10b. Summary of Water Quality-based Effluent Limitations: Discharge Point 002 (Storm Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
pH	---	---	---	---	6.5	8.5
Priority Pollutants						
Arsenic, Total Recoverable	µg/L	---	---	65.1	---	---
Copper, Total Recoverable	µg/L	---	---	5.8	---	---
Lead, Total Recoverable	µg/L	---	---	15.7	---	---
Mercury, Total Recoverable	µg/L	---	---	0.10	---	---
Nickel, Total Recoverable	µg/L	---	---	13.7	---	---

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Thallium, Total Recoverable	µg/L	---	---	12.6	---	---
Zinc, Total Recoverable	µg/L	---	---	95.1	---	---
Bis(2-ethylhexyl)phthalate	µg/L	---	---	11.8	---	---
Non-Conventional Pollutants						
Temperature	°F	---	---	---	---	86

“---” No effluent limitation is applicable.

Table F-10c. Summary of Water Quality-based Effluent Limitations: Discharge Point 003 (Storm Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
pH	---	---	---	---	6.5	8.5
Priority Pollutants						
Arsenic	µg/L	---	---	63.2	---	---
Copper	µg/L	---	---	5.8	---	---
Lead	µg/L	---	---	15.7	---	---
Mercury	µg/L	---	---	0.10	---	---
Nickel	µg/L	---	---	13.5	---	---
Silver	µg/L	---	---	2.2	---	---
Thallium	µg/L	---	---	12.6	---	---
Zinc	µg/L	---	---	95.1	---	---
Bis(2-ethylhexyl)phthalate	µg/L	---	---	11.8	---	---
Non-Conventional Pollutants						
Temperature	°F	---	---	---	---	86

“---” No effluent limitation is applicable.

Table F-10d. Summary of Water Quality-based Effluent Limitations: Discharge Point 004 (Hydrostatic Test Water)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Conventional pollutants</i>						
pH	---	---	---	---	6.5	8.5
<i>Priority Pollutants</i>						
Copper	µg/L	---	---	5.8	---	---
Benzene	µg/L	---	---	1.0	---	---
<i>Non-Conventional Pollutants</i>						
Temperature	°F	---	---	---	---	86

“---” No effluent limitation is applicable.

7. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Annual acute toxicity data for storm water for the years 2002 through 2005 submitted by the Discharger were as follows: At Discharge Point 001, eight samples were reported with less than 70% survival. The reported results ranged from 0% survival to 100% survival. Further, the data indicate the Discharger did not comply with the requirement that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%. At Discharge Point 002, two samples were reported with less than 70% survival. The reported results ranged from 57% survival to 100% survival. In addition, the data indicate that the Discharger complied with the average survival requirement, with the exception of one assessment. At Discharge Point 003, one sample was reported at 70% survival. Further, the data indicate the Discharger complied with the average survival requirement at all times. The reported sample results ranged from 70% survival to 100% survival. The Discharger provided one sample result from the hydrostatic test water which showed 100% survival.

According to the ROWD, Ultramar conducted a TRE in 2005 and 2006 for Discharge Point 001 (storm water from Parcels 1 and 2). Divalent cations (copper and zinc) have been identified as the most likely causes of acute toxicity because the storm water runoff typically contains very low hardness and alkalinity that increases the toxicity potential of these cations. It is believed that the potential sources of copper and zinc for this tank farm area is the native soils. Discharge Point 002 (storm water from Parcel 3) failed a WET test in January 2006. A TRE work plan was prepared and submitted to the Board in early February 2006. A TIE was conducted on a sample collected on February 28, 2006. The TIE suggests that zinc was the cause of the observed toxicity in Discharge Point 002. The toxicity potential of zinc may have been increased due to the low hardness and low alkalinity of the runoff.

Ultramar is currently evaluating the use of a limestone soil cover to reduce the toxicity of metals in the storm water. A limestone soil cover has two effects: 1) it raises the pH of the storm water which will tend to precipitate copper and zinc and hold them in the soils, thus lowering storm water concentrations; and 2) it raises the hardness and alkalinity of the storm water which will reduce the toxicity of divalent cations to the WET test species. The Order requires the Discharger (through the PMP) to provide periodic updates to the Regional Water Board concerning the status of this treatment option.

During the January 18, 2007, site inspection, the Discharger stated that storm water discharges from Parcels 1 and 2, and Parcel 3 (Discharge Point 001 and 002) have ceased until compliance with the acute toxicity limitation is attained. The Discharger indicated that storm water accumulated from these parcels is piped to the Refinery for treatment and then to the County Sanitation District of Los Angeles Wastewater Treatment Facility.

Consistent with Basin Plan requirements, this Order carries over the acute toxicity limitations and monitoring requirements from the previous Order.

D. Final Effluent Limitations

Section 402(o) of the CWA and 40 C.F.R. § 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data.

Effluent limitations for discharges of storm water runoff from Discharge Points 001, 002 and 003 for oil and grease, acute toxicity and phenolic compounds are being carried over from the previous Order (Order No. R4-2002-0029). Removal of these numeric limitations would constitute backsliding under CWA section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility. In addition, new effluent limitations for discharges of storm water effluent from Discharge Points 001 and 003 for arsenic, copper, lead, mercury, nickel, silver, thallium, zinc, and bis(2-ethylhexyl)phthalate have been added to this Order because the discharge from these Discharge Points (001 and 003) demonstrated reasonable potential to exceed water quality criteria for these parameters. Effluent limitations for arsenic, copper, lead, mercury, nickel, thallium, zinc, and bis(2-ethylhexyl)phthalate for discharges of effluent from Discharge Point 002 have been added to this Order because these constituents demonstrated reasonable potential. Finally, new temperature and pH limitations have been added to the Order for Discharge Points 001, 002, and 003 in order to comply with requirements of the Basin Plan and Thermal Plan.

Effluent limitations for discharges of hydrostatic test water through Discharge Point 004 for pH, TSS, turbidity, BOD₅, oil and grease, settleable solids, sulfides, chlorine residual and acute toxicity are being carried over from the previous Order (Order No. R4-2002-0029). Removal of these numeric limitations would constitute backsliding under CWA section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility. In addition, based on the nature of operations (i.e., hydrostatic testing for the integrity of new or rehabilitated pipes and petroleum storage tanks), the limits for benzene continue to be appropriate and will be carried over. The previous Order included WQBELs for lead, mercury, and zinc, however, all data submitted during the permit term for these pollutants were non-detect and did not demonstrate reasonable potential for these pollutants; therefore, effluent limitations for lead, mercury, and zinc will be removed from the Order. An RPA was conducted using the monitoring data for the Discharger's hydrostatic test water discharge data and the data indicated reasonable potential existed for copper. The existing WQBELs for copper; therefore, have been carried over.

The effluent limitation for temperature in the hydrostatic test water has been revised from 100°F to 86°F to reflect the Thermal Plan and to be consistent with other Orders issued for similar facilities.

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 40 C.F.R. § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The reissued permit is generally stringent than the previous permit.

The effluent limitations for lead, mercury, and zinc for Discharge Point 004 have been removed from this Order. The available data for lead, mercury, and zinc for Discharge Point 004 were reported as non-detect; therefore, these constituents did not demonstrate reasonable potential. The monitoring data submitted by the Discharger is considered new information. For all other constituents, this permit includes more stringent limits than those in the previous Order.

2. Satisfaction of Antidegradation Policy

The permitted discharge is consistent with the antidegradation provisions of section 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

The discharge from Ultramar, Inc., Wilmington Marine Terminal, Berth 164 is not a new discharge. The discharges from the Facility occur following storm events and when new pipes are being tested for integrity. Storm water is treated and tested prior to discharge to ensure the effluent limitations are met.

This NPDES permit includes effluent limitations to ensure the discharge does not adversely impact the beneficial uses of the Los Angeles Inner Harbor or degrade water quality. The inclusion of effluent limitations and prohibitions in the NPDES permit, which ensure that any discharge would not result in the lowering of water quality, coupled with the fact that the discharge occurs infrequently and is temporally limited, support the conclusion that no degradation will arise as a result of reissuing this permit. The issuance of this permit; therefore, is consistent with the State's Antidegradation Policy.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on pH, TSS, settleable solids, oil and grease, sulfides, and chlorine residual. Restrictions on pH, TSS, settleable solids, oil and grease, sulfides, and chlorine residual are discussed in Section IV.B.2. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR-SIP, which was initially approved by USEPA on May 18, 2000. Subsequently, the SIP was amended on February 24, 2005, by the state Water Board. That amendment became effective on July 13, 2005. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by

USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to section 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. Mass-based Effluent Limitations

Consistent with the previous Order, mass-based effluent limitations for the discharges through Discharge Points 001, 002, 003, and 004 are not included in this Order.

Table F-11a. Summary of Final Effluent Limitations (Discharge Point 001)

Parameter	Units	Effluent Limitations					Basis
		Average Monthly ^a	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants							
Oil and Grease	mg/L	---	---	15	---	---	E
pH	s.u.	---	---	---	---	6.5	Basin Plan
Priority Pollutants							
Arsenic, Total Recoverable	µg/L	---	---	65.6	---	---	CTR, SIP
Copper, Total Recoverable	µg/L	---	---	5.8	---	---	CTR, SIP
Lead, Total Recoverable	µg/L	---	---	15.8	---	---	CTR, SIP
Mercury, Total Recoverable	µg/L	---	---	0.10	---	---	CTR, SIP
Nickel, Total Recoverable	µg/L	---	---	12.6	---	---	CTR, SIP
Silver, Total Recoverable	µg/L	---	---	2.2	---	---	CTR, SIP
Thallium, Total Recoverable	µg/L	---	---	12.6	---	---	CTR, SIP
Zinc, Total Recoverable	µg/L	---	---	95.1	---	---	CTR, SIP
Bis(2-Ethylhexyl)phthalate	µg/L	---	---	11.8	---	---	CTR, SIP
Non-Conventional Pollutants							
Temperature	°F	---	---	---	---	86	Thermal Plan
Phenolic Compounds, Total	mg/L	---	---	1.0	---	---	E
Acute Toxicity	% Survival	---	---	1	--	--	Basin Plan

“---” No effluent limitation is applicable.

a Since the discharge is intermittent, no average monthly limitations are prescribed.

E = Existing Permit (Order No. R4-2002-0029); CTR = California Toxic Rule; and SIP = State Implementation Policy

- ¹ The acute toxicity of the effluent shall be such that: (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

Table F-11b. Summary of Final Effluent Limitations (Discharge Point 002)

Parameter	Units	Effluent Limitations					Basis
		Average Monthly ^a	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants							
Oil and Grease	mg/L	---	---	15	---	---	E
pH	s.u.	---	---	---	6.5	8.5	Basin Plan
Priority Pollutants							
Arsenic, Total Recoverable	µg/L	---	---	65.1	---	---	CTR, SIP
Copper, Total Recoverable	µg/L	---	---	5.8	---	---	CTR, SIP
Lead, Total Recoverable	µg/L	---	---	15.7	---	---	CTR, SIP
Mercury, Total Recoverable	µg/L	---	---	0.10	---	---	CTR, SIP
Nickel, Total Recoverable	µg/L	---	---	13.7	---	---	CTR, SIP
Thallium, Total Recoverable	µg/L	---	---	12.6	---	---	CTR, SIP
Zinc, Total Recoverable	µg/L	---	---	95.1	---	---	CTR, SIP
Bis(2-Ethylhexyl)phthalate	µg/L	---	---	11.8	---	---	CTR, SIP
Non-Conventional Pollutants							
Temperature	°F	---	---	---	---	86	Thermal Plan
Phenolic Compounds, Total	mg/L	---	---	1.0	---	---	E
Acute Toxicity	% Survival	---	---	¹	--	--	Basin Plan

“---” No effluent limitation is applicable.

a Since the discharge is intermittent, no average monthly limitations are prescribed.

E = Existing Permit (Order No. R4-2002-0029); CTR = California Toxic Rule; and SIP = State Implementation Policy

¹ The acute toxicity of the effluent shall be such that: (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

Table F-11c. Summary of Final Effluent Limitations (Discharge Point 003)

Parameter	Units	Effluent Limitations					Basis
		Average Monthly ^a	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants							
Oil and Grease	mg/L	---	---	15	---	---	E
pH	s.u.	---	---	---	6.5	8.5	Basin Plan
Priority Pollutants							
Arsenic	µg/L	---	---	63.2	---	---	CTR, SIP
Copper	µg/L	---	---	5.8	---	---	CTR, SIP
Lead	µg/L	---	---	15.7	---	---	CTR, SIP
Mercury	µg/L	---	---	0.10	---	---	CTR, SIP
Nickel	µg/L	---	---	13.5	---	---	CTR, SIP
Silver	µg/L	---	---	2.2	---	---	CTR, SIP
Thallium	µg/L	---	---	12.6	---	---	CTR, SIP
Zinc	µg/L	---	---	95.1	---	---	CTR, SIP
Bis(2-Ethylhexyl)phthalate	µg/L	---	---	11.8	---	---	CTR, SIP
Non-Conventional Pollutants							
Temperature	°F	---	---	---	---	86	Thermal Plan
Phenolic Compounds, Total	mg/L	---	---	1.0	---	---	E
Acute Toxicity	% Survival	---	---	1	--	--	Basin Plan

“---” No effluent limitation is applicable.

a Since the discharge is intermittent, no average monthly limitations are prescribed.

E = Existing Permit (Order No. R4-2002-0029); CTR = California Toxic Rule; and SIP = State Implementation Policy

¹ The acute toxicity of the effluent shall be such that: (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E).

Table F-11d. Summary of Final Effluent Limitations (Hydrostatic Test Water through Discharge Point 004)

Parameter	Units	Effluent Limitations					Basis
		Average Monthly ^a	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants							
Biological Oxygen Demand (BOD) (5-day @ 20 Deg. C) ²	mg/L	---	---	30	---	---	E
Oil and Grease	mg/l	---	---	15	---	---	E
pH	pH Units	---	---		6.5	8.5	E
Total Suspended Solids (TSS) ²	mg/L	---	---	75	---	---	E
Priority Pollutants							
Copper	µg/L	---	---	5.8	---	---	E
Benzene	µg/L	---	---	1.0	---	---	E
Non-Conventional Pollutants							
Chlorine, Total Residual	mg/L	---	---	0.1	---	---	E
Settleable Solids	ml/L	---	---	0.3	---	---	E
Sulfide, Total	mg/L	---	---	1.0	---	---	E
Temperature	^o F	---	---	86	---	---	Thermal Plan
Turbidity	NTU	---	---	75	---	---	E
Acute Toxicity	% Survival	---	---	¹	--	--	Basin Plan

“---” No effluent limitation is applicable.

a Since the discharge is intermittent, no average monthly limitations are prescribed.

E = Existing Permit (Order No. R4-2002-0029); CTR = California Toxic Rule; and SIP = State Implementation Policy

¹ The acute toxicity of the effluent shall be such that: (1) The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (2) No single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in Section V of the MRP No. 2165 (Attachment E)

E. Interim Effluent Limitations

40 CFR § 131.38(e) provides conditions under which interim effluent limitations and compliance schedules may be issued. The SIP allows inclusion of an interim limitation with a specific compliance schedule included in an NPDES permit for priority pollutants if the limitation for the priority pollutant is based on CTR criteria and the Discharger demonstrates that it is infeasible to achieve immediate compliance with the effluent limitations.

Based on effluent monitoring data submitted by the Discharger for storm water discharges from Discharge Point 001, a comparison between the MEC and calculated AMEL and MDEL values shows that the Discharger may be unable to consistently comply with the AMEL and MDEL established in this Order for copper, lead, mercury, nickel, silver, zinc, and bis(2-ethylhexyl)phthalate. As a result, this Order contains interim limitations for these parameters and a compliance schedule that allows the Discharger from the effective date of the Order until May 18, 2010, to comply with the final effluent limitations.

Based on storm water effluent monitoring data submitted by the Discharger for discharges from Discharge Point 002, a comparison between the MEC and calculated AMEL and MDEL values shows that the Discharger may be unable to consistently comply with the AMEL and MDEL established in this Order for copper, lead, mercury, nickel, zinc, and bis(2-ethylhexyl)phthalate. As a result, this Order contains interim limitations for these parameters and a compliance schedule that allows the Discharger from the effective date of the Order until May 18, 2010, to comply with the final effluent limitations.

Based on storm water effluent monitoring data submitted by the Discharger for discharges from Discharge Point 003, a comparison between the MEC and calculated AMEL and MDEL values shows that the Discharger may be unable to consistently comply with the AMEL and MDEL established in this Order for copper, lead, mercury, nickel, zinc, and bis(2-ethylhexyl)phthalate. As a result, this Order contains interim limitations for these parameters and a compliance schedule that allows the Discharger from the effective date of the Order until May 18, 2010, to comply with the final effluent limitations.

Within 1 year after the effective date of this Order, the Discharger must prepare and submit a compliance plan that describes the steps that will be taken to ensure compliance with applicable limitations at Discharge Points 001, 002, and 003.

Pursuant to the SIP (Section 2.2.1, Interim Requirements under a Compliance Schedule), when compliance schedules are established in an Order, interim limitations must be included based on current treatment facility performance or existing permit limitations, whichever is more stringent to maintain existing water quality. For Discharge Points 001, 002, and 003, Order No. R4-2002-0029 does not contain effluent limitations for copper, lead, mercury, nickel, silver, zinc and bis(2-ethylhexyl)phthalate. There are insufficient data to perform a meaningful statistical analysis to develop interim limitations for mercury, silver, and bis(2-ethylhexyl)phthalate; therefore, the MEC will serve as the basis for the interim effluent limitation for these pollutants. For Discharge Points 001, 002, and 003, there are fifteen detected data points for copper, lead, nickel, and zinc; therefore, the 99th percentile value serves as the basis for the interim effluent limitations for these pollutants. It should be noted that the Regional Water Board may take appropriate enforcement actions if interim limitations and requirements are not met.

The SIP requires that the Regional Water Board establish other interim requirements such as requiring the discharger to develop a pollutant minimization plan and/or source control

measures and participates in the activities necessary to achieve the final effluent limitations. These interim limitations shall be in effect from the effective date of this Order until May 17, 2010, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

Table F-12a. Interim Effluent Limitations for Discharge Point 001

Parameter	Unit	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Copper, Total Recoverable	µg/L	91	---
Lead, Total Recoverable	µg/L	290	---
Mercury, Total Recoverable	µg/L	0.50	---
Nickel, Total Recoverable	µg/L	19	---
Silver, Total Recoverable	µg/L	5	---
Zinc, Total Recoverable	µg/L	1,500	---
Bis(2-ethylhexyl)Phthalate	µg/L	21	---

Table F-12b. Interim Effluent Limitations for Discharge Point 002

Parameter	Unit	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Copper, Total Recoverable	µg/L	87	---
Lead, Total Recoverable	µg/L	250	---
Mercury, Total Recoverable	µg/L	0.14	---
Nickel, Total Recoverable	µg/L	24	---
Zinc, Total Recoverable	µg/L	1,200	---
Bis(2-ethylhexyl)Phthalate	µg/L	24	---

Table F-12c. Interim Effluent Limitations for Discharge Point 003

Parameter	Unit	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Copper, Total Recoverable	µg/L	97	---
Lead, Total Recoverable	µg/L	300	---
Mercury, Total Recoverable	µg/L	0.50	---
Nickel, Total Recoverable	µg/L	18	---
Zinc, Total Recoverable	µg/L	1,400	---
Bis(2-ethylhexyl)Phthalate	µg/L	20	---

F. Land Discharge Specifications

Not Applicable.

G. Reclamation Specifications

Not Applicable.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

B. Groundwater

Not Applicable.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 C.F.R. § 122.48 requires that all NPDES permits to specify recording and reporting of monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

A. Influent Monitoring

Not Applicable.

B. Effluent Monitoring

Monitoring for those pollutants expected to be present in the Monitoring Locations M-001, M-002, M-003, and M-004 discharged through Discharge Points 001, 002, 003, and 004 will be required as shown on the proposed MRP. To determine compliance with effluent limitations, the proposed monitoring plan carries forward monitoring requirements and frequencies from the previous Order No. R2-2002-0029 with some modifications. In the proposed Order, storm water monitoring requirements for Discharge Points 001, 002 and 003 at Locations M-001 through M-003 will be carried over from the previous Order as well as the monitoring frequencies for these pollutants. In addition, for storm water discharges through Discharge Point 001, 002, and 003, thallium and bis(2-ethylhexyl)phthalate will be added to the proposed Order because these pollutants show reasonable potential.

For hydrostatic test water discharges through Discharge Points 004, all monitoring requirements will be carried over to the proposed Order.

According to the SIP, the Discharger is required to monitor the effluent for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct effluent monitoring of the CTR priority pollutants. The monitoring requirements and frequencies of the priority pollutants in the proposed permit are carried over from the previous permit.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This Order includes limitations for acute, and therefore, monitoring requirements are included in the MRP to determine compliance with the effluent limitations established in Limitations and Discharge Requirements, Effluent Limitations, Section IV.A.1.a.

D. Receiving Water Monitoring

1. Surface Water

This Order includes receiving water limitations and therefore, monitoring requirements are included in the MRP to determine compliance with the receiving water limitations established in Limitations and Discharge Requirements, Receiving Water Limitations, section V.A. Monitoring for temperature, pH, and dissolved oxygen in the downstream receiving water, at Monitoring Location RSW-002, is included in the proposed permit. The Discharger is also required to perform general observations of the receiving water when discharges occur and report the observations in the monitoring report. Attention shall be given to the presence or absence of: floating or suspended matter, discoloration, aquatic life, visible film, sheen or coating, and fungi, slime, or objectionable growths.

According to the SIP, the Discharger is required to monitor the upstream receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct upstream receiving water monitoring of the CTR priority pollutants at Monitoring Location RSW-001. The Discharger must analyze temperature, pH, and hardness of the upstream receiving water at the same time the samples are collected for priority pollutants analysis.

2. Groundwater

Not Applicable.

E. Other Monitoring Requirements

There is insufficient monitoring data to conduct the RPA for the 2,3,7,8-TCDD congeners. The Order includes requirements for monitoring of 2,3,7,8-TCDD congeners for both effluent and receiving waters.

The Discharger is also required to conduct effluent water monitoring at Discharger Points 001, 002, and 003, and receiving water monitoring at RSW-001 for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample during discharge (once during the wet weather and once during dry weather) for two years (during the 2nd year and 4th year of the permit). The 2,3,7,8-TCDD and the 16 congeners are listed in the Table below. The Discharger is required to calculate Toxic Equivalence (TEQ)

for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

Congeners	TEF
2,3,7,8-tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. § 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. § 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. § 122.42.

40 C.F.R. § 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

2. Regional Water Board Standard Provisions

Regional Water Board Standard Provisions are based on the CWA, USEPA regulations, and the Water Code.

B. Special Provisions

1. Reopener Provisions

These provisions are based on section 123 and the previous Order. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions.

3. Best Management Practices and Pollution Prevention

This provision is based on 40 C.F.R. § 122.44(k) and includes the requirement to maintain a SWPPP.

4. Compliance Schedules

This provision is based on the SIP, Section 2.1, Compliance Schedules. CTR's Compliance Schedule provisions sunseted on May 17, 2005. After this date, the provisions of the SIP allow for Compliance Schedules not to exceed 5 years from issuance or past May 17, 2010, whichever is sooner. The Discharger is required to develop and submit a Compliance Plan.

According to the SIP, pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted.

This Order also requires that the Discharger develop and implement a Pollution Minimization Plan for arsenic, copper, lead, mercury, nickel, silver, thallium, zinc, benzene and bis (2-ethylhexyl)phthalate. The Discharger stated in their Work Plan which was submitted on January 14, 2003, that they were investigating a treatment system for controlling concentrations of copper, zinc, and residual chlorine; the Work Plan is currently being implemented. This action supports the need for the Discharger to develop and implement a Pollution Minimization Plan for the aforementioned parameters. Pursuant to section 2.4.5.1 of the SIP, pollution minimization includes: monitoring for potential sources of the pollutants, periodic monitoring, control strategy, control measure implementation, and an annual status report sent to the Regional Water Board.

5. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 C.F.R. § 122.41(e) and the previous Order.

6. Special Provisions for Municipal Facilities (POTWs Only)

Not Applicable.

7. Other Special Provisions

Not Applicable.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollution Discharge Elimination System (NPDES) permit for Ultramar, Inc., Wilmington Marine Terminal, Berth 164, Battery 1. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Board offices by 5:00 p.m. on July 19, 2007.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: August 9, 2007
Time: 9:00 A.M.
Location: Metropolitan Water District, Board Room
700 N. Alameda Street,
Los Angeles, California

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <http://www.waterboards.ca.gov/losangeles> where you can access the current agenda for changes in dates and locations.

D. Nature of Hearing

This will be a formal adjudicative hearing pursuant to section 648 et seq. of title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) will not apply to this proceeding.

Ex Parte Communications Prohibited: As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Board must be directed to staff.

E. Parties to the Hearing

The following are the parties to this proceeding:

1. The applicant/permittee – Ultramar, Inc.
2. Regional Board Staff

Any other persons requesting party status must submit a written or electronic request to staff not later than [20] business days before the hearing. All parties will be notified if other persons are so designated.

F. Public Comments and Submittal of Evidence

Persons wishing to comment upon or object to the tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Board's agenda folder, and fully considered by the Board, written comments must be received no later than close of business July 19, 2007. Comments or evidence received after that date will be submitted, ex agenda, to the Board for consideration, but only included in administrative record with express approval of the Chair during the hearing. Additionally, if the Board receives only supportive comments, the permit may be placed on the Board's consent calendar, and approved without an oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 30 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to speak. At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of [15] business days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

If there should not be a quorum on the scheduled date of this meeting, all cases will be automatically continued to the next scheduled meeting on September 6, 2007. A continuance will not extend any time set forth herein.

H. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

I. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address below at any time between 8:00 a.m. and 4:30 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

J. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

K. Additional Information

Requests for additional information or questions regarding this order should be directed to Rosario Aston at (213) 576-6653.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

2. Planning and Organization

a. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in the Monitoring and Reporting Program (Attachment E). The SWPPP shall clearly identify the related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

b. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this Order. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Order. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

3. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL
STORM WATER POLLUTION PREVENTION PLANS

<p>PLANNING AND ORGANIZATION</p> <p>Form Pollution Prevention Team Review other plans</p>
<p>ASSESSMENT PHASE</p> <p>Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant Risks</p>
<p>BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE</p> <p>Non-structural BMPs Structural BMPs Select activity and site-specific BMPs</p>
<p>IMPLEMENTATION PHASE</p> <p>Train employees Implement BMPs Conduct recordkeeping and reporting</p>
<p>EVALUATION / MONITORING</p> <p>Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP</p>

The following information shall be included on the site map:

- a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil-water separators, diversion barriers, etc.
- c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks have occurred.
- e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

4. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

5. Description of Potential Pollutant Sources

- a. The SWPPP shall include a narrative description of the facility's industrial activities associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

i. Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water. The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Order.

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources not authorized by this Order. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All un-authorized non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the un-authorized non-storm water discharges and associated drainage area.

The SWPPP must include BMPs to prevent or reduce contact of un-authorized non-storm water discharges with significant materials or equipment.

vi. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

- b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section 7. below.

6. Assessment of Potential Pollutant Sources

- a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described above to determine:
- i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and
 - ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.
- b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 7 below.

7. Storm Water Best Management Practices

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections 5 and 6, above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND
CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

a. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section 7.b, below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil-water separators, etc.) as well as other facility equipment and systems.

iii. Spill Response

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

v. Employee Training

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. Recordkeeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

viii. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

ix. Inspections

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up

procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

x. Quality Assurance

This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. Structural BMPs

Where non-structural BMPs as identified in Section 7.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. Secondary Containment Structures

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

This includes inlet controls, infiltration devices, oil-water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

8. SWPPP General Requirements

- a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum

requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions.

- c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- d. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Order.
- e. When any part of the SWPPP is infeasible to implement by the deadlines specified in this Order due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS (ML)

The Minimum Levels (MLs) in ppb ($\mu\text{g/L}$) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these

substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

- * The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

COLOR – Colorimetric

ATTACHMENT I – PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	
2	Arsenic	7440382	
3	Beryllium	7440417	
4	Cadmium	7440439	
5a	Chromium (III)	16065831	
5a	Chromium (VI)	18540299	
6	Copper	7440508	
7	Lead	7439921	
8	Mercury	7439976	
9	Nickel	7440020	
10	Selenium	7782492	
11	Silver	7440224	
12	Thallium	7440280	
13	Zinc	7440666	
14	Cyanide	57125	
15	Asbestos	1332214	
16	2,3,7,8-TCDD	1746016	
17	Acrolein	107028	
18	Acrylonitrile	107131	
19	Benzene	71432	
20	Bromoform	75252	
21	Carbon Tetrachloride	56235	
22	Chlorobenzene	108907	
23	Chlorodibromomethane	124481	
24	Chloroethane	75003	
25	2-Chloroethylvinyl Ether	110758	
26	Chloroform	67663	
27	Dichlorobromomethane	75274	
28	1,1-Dichloroethane	75343	
29	1,2-Dichloroethane	107062	
30	1,1-Dichloroethylene	75354	
31	1,2-Dichloropropane	78875	
32	1,3-Dichloropropylene	542756	
33	Ethylbenzene	100414	
34	Methyl Bromide	74839	
35	Methyl Chloride	74873	
36	Methylene Chloride	75092	
37	1,1,2,2-Tetrachloroethane	79345	
38	Tetrachloroethylene	127184	
39	Toluene	108883	
40	1,2-Trans-Dichloroethylene	156605	
41	1,1,1-Trichloroethane	71556	
42	1,1,2-Trichloroethane	79005	
43	Trichloroethylene	79016	
44	Vinyl Chloride	75014	
45	2-Chlorophenol	95578	
46	2,4-Dichlorophenol	120832	
47	2,4-Dimethylphenol	105679	
48	2-Methyl-4,6-Dinitrophenol	534521	

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
49	2,4-Dinitrophenol	51285	†
50	2-Nitrophenol	88755	†
51	4-Nitrophenol	100027	†
52	3-Methyl-4-Chlorophenol	59507	†
53	Pentachlorophenol	87865	†
54	Phenol	108952	†
55	2,4,6-Trichlorophenol	88062	†
56	Acenaphthene	83329	†
57	Acenaphthylene	208968	†
58	Anthracene	120127	†
59	Benzidine	92875	†
60	Benzo(a)Anthracene	56553	†
61	Benzo(a)Pyrene	50328	†
62	Benzo(b)Fluoranthene	205992	†
63	Benzo(ghi)Perylene	191242	†
64	Benzo(k)Fluoranthene	207089	†
65	Bis(2-Chloroethoxy)Methane	111911	†
66	Bis(2-Chloroethyl)Ether	111444	†
67	Bis(2-Chloroisopropyl)Ether	108601	†
68	Bis(2-Ethylhexyl)Phthalate	117817	†
69	4-Bromophenyl Phenyl Ether	101553	†
70	Butylbenzyl Phthalate	85687	†
71	2-Chloronaphthalene	91587	†
72	4-Chlorophenyl Phenyl Ether	7005723	†
73	Chrysene	218019	†
74	Dibenzo(a,h)Anthracene	53703	†
75	1,2-Dichlorobenzene	95501	†
76	1,3-Dichlorobenzene	541731	†
77	1,4-Dichlorobenzene	106467	†
78	3,3'-Dichlorobenzidine	91941	†
79	Diethyl Phthalate	84662	†
80	Dimethyl Phthalate	131113	†
81	Di-n-Butyl Phthalate	84742	†
82	2,4-Dinitrotoluene	121142	†
83	2,6-Dinitrotoluene	606202	†
84	Di-n-Octyl Phthalate	117840	†
85	1,2-Diphenylhydrazine	122667	†
86	Fluoranthene	206440	†
87	Fluorene	86737	†
88	Hexachlorobenzene	118741	†
89	Hexachlorobutadiene	87863	†
90	Hexachlorocyclopentadiene	77474	†
91	Hexachloroethane	67721	†
92	Indeno(1,2,3-cd)Pyrene	193395	†
93	Isophorone	78591	†
94	Naphthalene	91203	†
95	Nitrobenzene	98953	†
96	N-Nitrosodimethylamine	62759	†
97	N-Nitrosodi-n-Propylamine	621647	†
98	N-Nitrosodiphenylamine	86306	†
99	Phenanthrene	85018	†
100	Pyrene	129000	†

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
101	1,2,4-Trichlorobenzene	120821	†
102	Aldrin	309002	†
103	alpha-BHC	319846	†
104	beta-BHC	319857	†
105	gamma-BHC	58899	†
106	delta-BHC	319868	†
107	Chlordane	57749	†
108	4,4'-DDT	50293	†
109	4,4'-DDE	72559	†
110	4,4'-DDD	72548	†
111	Dieldrin	60571	†
112	alpha-Endosulfan	959988	†
113	beta-Endosulfan	33213659	†
114	Endosulfan Sulfate	1031078	†
115	Endrin	72208	†
116	Endrin Aldehyde	7421934	†
117	Heptachlor	76448	†
118	Heptachlor Epoxide	1024573	†
119	PCB-1016	12674112	†
120	PCB-1221	11104282	†
121	PCB-1232	11141165	†
122	PCB-1242	53469219	†
123	PCB-1248	12672296	†
124	PCB-1254	11097691	†
125	PCB-1260	11096825	†
126	Toxaphene	8001352	†

¹ Pollutants shall be analyzed using the methods described in 40 CFR Part 136.

ULTRAMAR, INC.
WILMINGTON MARINE TERMINAL, BERTH 164
ORDER NO. R4-2007-0039
NPDES NO. CA0055719

Summary of Reasonable Potential Analysis

CIRM	Parameters	Units	CV	MEC	Freshwater		Human Health for consumption of...		Tier 1 - Need Limit?	B Available (Y/N)?	Are all B data points non-defects (Y/N)?	Enter the detection limit (MDL) (µg/L)	Enter the pollutant max conc (µg/L)	If all B is ND, is MDL < C? (Y/N)	If B-C, effluent limit required (Y/N)	Tier 2 - other info.?	RPA Result - Need Limit?	Reason	Organisms only
					C acute = CMC tot	C chronic = CMC tot	Silverfish	C chronic = CMC tot											
1	Arsenic	µg/L	0.97	17.5	68.00	36.00	4300.00	Narrative	Y	Y	46.8	0.97	Y	No Criteria	No Criteria	Yes	MEC-C & B-C	2.50	
2	Beryllium	µg/L	0.6	No Criteria	42.25	9.35	Narrative	N	Y	Y	0.6	0.6	Y	No Criteria	No Criteria	Yes	MEC-C & B-C		
3	Cadmium	µg/L	0.6	No Criteria	103.75	65.95	Narrative	N	Y	Y	20	19.6	Y	No Criteria	No Criteria	Yes	MEC-C & B-C		
4	Chromium (III)	µg/L	0.6	No Criteria	57.8	3.73	Narrative	N	Y	Y	20	24.4	Y	No Criteria	No Criteria	Yes	MEC-C & B-C	2.16	
5	Copper	µg/L	0.708	51	220.82	8.52	Narrative	Y	Y	Y	0.2	0.2	Y	No Criteria	No Criteria	Yes	MEC-C	2.77	
6	Lead	µg/L	1.295	290	220.82	8.52	Narrative	Y	Y	Y	0.2	0.2	Y	No Criteria	No Criteria	Yes	MEC-C	0.031	
7	Mercury	µg/L	0.6	0.5	4600.00	8.28	Narrative	Y	Y	Y	2.85	2.85	Y	No Criteria	No Criteria	Yes	MEC-C	4900	
8	Nickel	µg/L	0.462	19	74.75	8.28	Narrative	Y	Y	Y	4.18	4.18	Y	No Criteria	No Criteria	Yes	MEC-C	2.01	
9	Nickel	µg/L	0.462	19	74.75	8.28	Narrative	Y	Y	Y	4.18	4.18	Y	No Criteria	No Criteria	Yes	MEC-C	2.01	
10	Selenium	µg/L	0.6	0.5	29.38	71.14	6.30	Narrative	Y	Y	50	50	Y	No Criteria	No Criteria	Yes	MEC-C	6.3	
11	Selenium	µg/L	0.6	0.5	29.38	71.14	6.30	Narrative	Y	Y	50	50	Y	No Criteria	No Criteria	Yes	MEC-C	6.3	
12	Thallium	µg/L	0.6	3.77	95.14	85.62	6.30	Narrative	Y	Y	71	71	Y	No Criteria	No Criteria	Yes	MEC-C	2.17	
13	Zinc	µg/L	0.712	1500	95.14	85.62	6.30	Narrative	Y	Y	71	71	Y	No Criteria	No Criteria	Yes	MEC-C	2.17	
14	Cyanide	µg/L	0.6	0.075	1.00	1.00	220000.00	Narrative	Y	Y	0.2	0.2	Y	No Criteria	No Criteria	Yes	MEC-C	0.00050	
15	2,4-Dichlorophenoxyacetic acid (2,4-D) COD	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C	0.00000014	
16	Acetaminophen	µg/L	0.6	5	780	780	780	Narrative	Y	Y	20	20	Y	No Criteria	No Criteria	Yes	MEC-C		
17	Acetaminophen	µg/L	0.6	5	780	780	780	Narrative	Y	Y	20	20	Y	No Criteria	No Criteria	Yes	MEC-C		
18	Acrylamide	µg/L	0.6	0.5	0.66	0.66	0.66	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
19	Benzene	µg/L	0.6	0.5	71	71.0	71.0	Narrative	Y	Y	10	10	Y	No Criteria	No Criteria	Yes	MEC-C		
20	Bromofom	µg/L	0.6	1	960	39.0	960	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
21	Chloroform	µg/L	0.6	0.5	4.4	4.4	4.4	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
22	Chloroform	µg/L	0.6	0.5	4.4	4.4	4.4	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
23	Chloroform	µg/L	0.6	0.5	4.4	4.4	4.4	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
24	Chloroform	µg/L	0.6	0.5	4.4	4.4	4.4	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
25	2-Chlorophenyl ether	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
26	Chloroform	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
27	Chloroform	µg/L	0.6	0.42	46	46	46	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
28	Chloroform	µg/L	0.6	0.42	46	46	46	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
29	1,2-Dichloroethane	µg/L	0.6	0.5	89.00	89.00	89.00	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
30	1,1,1-Trichloroethane	µg/L	0.6	0.5	3.2	3.20	3.20	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
31	1,2-Dichloroethane	µg/L	0.6	1	39	39.00	39.00	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
32	1,2-Dichloroethane	µg/L	0.6	1	1700	1700	1700	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
33	1,2-Dichloroethane	µg/L	0.6	1	2900	2900	2900	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
34	Methyl Bromide	µg/L	0.6	1	4000	4000	4000	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
35	Methyl Chloride	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
36	Methylenediphenyl ether	µg/L	0.6	2	1600	1600.00	1600.00	Narrative	Y	Y	1.8	1.8	Y	No Criteria	No Criteria	Yes	MEC-C		
37	Methylenediphenyl ether	µg/L	0.6	11	11.00	11.00	11.00	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
38	Methylenediphenyl ether	µg/L	0.6	0.5	8.85	8.85	8.85	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
39	Methylenediphenyl ether	µg/L	0.6	0.5	20.00	20.00	20.00	Narrative	Y	Y	0.18	0.18	Y	No Criteria	No Criteria	Yes	MEC-C		
40	1,2-Trans-Dichloroethane	µg/L	0.6	0.5	140000	140000	140000	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
41	1,1,1-Trichloroethane	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
42	1,1,1-Trichloroethane	µg/L	0.6	1	42	42.00	42.00	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
43	1,1,1-Trichloroethane	µg/L	0.6	1	81	81.00	81.00	Narrative	Y	Y	1	1	Y	No Criteria	No Criteria	Yes	MEC-C		
44	1,1,1-Trichloroethane	µg/L	0.6	0.4	400	400.00	400.00	Narrative	Y	Y	0.5	0.5	Y	No Criteria	No Criteria	Yes	MEC-C		
45	2-Chloroethanol	µg/L	0.6	0.5	790	790	790	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
46	2,4-Dichlorophenol	µg/L	0.6	2	2300	2300	2300	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
47	4-Terme-o-oxol (but.)	µg/L	0.6	2	765	765.00	765.00	Narrative	Y	Y	25	25	Y	No Criteria	No Criteria	Yes	MEC-C		
48	2,4-Dichlorophenol	µg/L	0.6	5	14000	14000	14000	Narrative	Y	Y	10	10	Y	No Criteria	No Criteria	Yes	MEC-C		
49	2,4-Dichlorophenol	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
50	2-Nitrophenol	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
51	4-Nitrophenol	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
52	3-Methyl-4-Chlorophenol	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
53	2,4-Dichlorophenol	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
54	Phenol	µg/L	0.6	5	6500000	6500000	6500000	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
55	Phenol	µg/L	0.6	5	2700	2700	2700	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
56	Acenaphthylene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
57	Acenaphthylene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
58	Benzo(a)anthracene	µg/L	0.6	5	110000	110000	110000	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
59	Benzo(a)anthracene	µg/L	0.6	5	0.0054	0.0054	0.0054	Narrative	Y	Y	0.05	0.05	Y	No Criteria	No Criteria	Yes	MEC-C		
60	Benzo(a)anthracene	µg/L	0.6	0.049	0.049	0.049	0.049	Narrative	Y	Y	0.07	0.07	Y	No Criteria	No Criteria	Yes	MEC-C		
61	Benzo(a)anthracene	µg/L	0.6	0.049	0.049	0.049	0.049	Narrative	Y	Y	0.038	0.038	Y	No Criteria	No Criteria	Yes	MEC-C		
62	Benzo(a)anthracene	µg/L	0.6	0.049	0.049	0.049	0.049	Narrative	Y	Y	0.038	0.038	Y	No Criteria	No Criteria	Yes	MEC-C		
63	Benzo(a)anthracene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
64	Benzo(a)anthracene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
65	Benzo(a)anthracene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No Criteria	Yes	MEC-C		
66	Benzo(a)anthracene	µg/L	0.6	1	1.4	1.400	1.400	Narrative	Y	Y	15	15	Y	No Criteria	No Criteria	Yes	MEC-C		
67	Benzo(a)anthracene	µg/L	0.6	2	170000	170000	170000	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
68	Benzo(a)anthracene	µg/L	0.6	21	5.9	5.9	5.9	Narrative	Y	Y	5	5	Y	No Criteria	No Criteria	Yes	MEC-C		
69	Benzo(a)anthracene	µg/L	0.6	No Criteria	0.00000014	0.00000014	0.00000014	Narrative	Y	Y	0.00000014	0.00000014	Y	No Criteria	No				

CTR#	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS			Recommendation	Comment
		Subwater / Freshwater / Basin Plan					Subwater / Freshwater / Basin Plan					Lowest AMEL	Lowest MDEL	Recommendation		
		ECA acute multiplier (5.7)	LTA acute multiplier	ECA chronic multiplier	LTA chronic multiplier	AMEL multiplier (1.92)	AMEL multiplier (1.92)	AMEL multiplier (1.92)	AMEL multiplier (1.92)	AMEL multiplier (1.92)	AMEL multiplier (1.92)					
1	Arsenic	0.21	14.38	0.38	13.66	1.92	26.27	4.80	65.60047	26.26901	65.60047	No Limit	No Limit			
2	Beryllium											No Limit	No Limit			
3	Cadmium											No Limit	No Limit			
4	Cerium											No Limit	No Limit			
5a	Chromium (III)											No Limit	No Limit			
5b	Chromium (VI)											No Limit	No Limit			
6	Copper	0.38	1.85	0.48	1.78	1.63	2.67	3.59	5.78	2.67	5.78	No Limit	No Limit			
7	Lead	0.18	35.94	0.30	2.56	2.22	5.69	6.14	15.75154	5.69	15.75	No Limit	No Limit			
8	Mercury	0.40	29.81	0.69	5.00	1.42	7.09	2.52	12.62548	0.10232	12.62548	No Limit	No Limit			
9	Nickel											No Limit	No Limit			
10	Selenium	0.32	0.72	0.53	0.72	1.55	1.12	3.11	2.24	1.1654	2.24	No Limit	No Limit			
11	Silver											No Limit	No Limit			
12	Sulfur											No Limit	No Limit			
13	Zinc	0.38	26.32	0.46	40.68	1.66	43.78	3.61	95.14	43.78	95.14	No Limit	No Limit			
14	Cyanide											No Limit	No Limit			
15	Asbestos											No Limit	No Limit			
16	2,3,7,8 TCDD						1.55	3.11		0.00000000	0.00000000	No Limit	No Limit			
17	Acrylonitrile											No Limit	No Limit			
18	Benzene											No Limit	No Limit			
19	Bromoform											No Limit	No Limit			
20	Bromobenzene											No Limit	No Limit			
21	Carbon Tetrachloride											No Limit	No Limit			
22	Chlorobenzene											No Limit	No Limit			
23	Chloroethane											No Limit	No Limit			
24	Chloroethene											No Limit	No Limit			
25	2-Chloroethyl ethyl ether											No Limit	No Limit			
26	Chloroform											No Limit	No Limit			
27	Dichlorodimethyl ether											No Limit	No Limit			
28	Dichloromethane											No Limit	No Limit			
29	1,2-Dichloroethane											No Limit	No Limit			
30	1,1-Dichloroethene											No Limit	No Limit			
31	1,2-Dichloroethene											No Limit	No Limit			
32	1,2-Dichloroethane											No Limit	No Limit			
33	1,2-Dichloroethane											No Limit	No Limit			
34	Methyl Bromide											No Limit	No Limit			
35	Methyl Chloride											No Limit	No Limit			
36	Methylene Chloride											No Limit	No Limit			
37	1,1,2,2-Tetrachloroethane											No Limit	No Limit			
38	Trichloroethene											No Limit	No Limit			
39	Trichloroethane											No Limit	No Limit			
40	1,2-Diethyl Dichloroethane											No Limit	No Limit			
41	1,1,1-Trichloroethane											No Limit	No Limit			
42	1,1,2-Trichloroethane											No Limit	No Limit			
43	Trichloroethylene											No Limit	No Limit			
44	2-Chloroethanol											No Limit	No Limit			
45	2-Chloroethane											No Limit	No Limit			
46	2,4-Dichlorophenol											No Limit	No Limit			
47	2,4-Dinitrophenol											No Limit	No Limit			
48	4,6-dinitro-o-cresol (4,6-dinitro-1,3-Dinitrophenol)											No Limit	No Limit			
49	4-Nitrophenol											No Limit	No Limit			
50	2-Nitrophenol											No Limit	No Limit			
51	4-Nitrophenol											No Limit	No Limit			
52	3-Methyl-4-Chlorophenol (3-Methyl-4-Chlorophenol)											No Limit	No Limit			
53	Phenyl Acetate											No Limit	No Limit			
54	Phenyl Acetate											No Limit	No Limit			
55	2,4,6-Trichlorophenol											No Limit	No Limit			
56	Acenaphthene											No Limit	No Limit			
57	Acenaphthylene											No Limit	No Limit			
58	Anthracene											No Limit	No Limit			
59	Anthracene											No Limit	No Limit			
60	Benzo(a)Anthracene											No Limit	No Limit			
61	Benzo(b)Fluoranthene											No Limit	No Limit			
62	Benzo(k)Fluoranthene											No Limit	No Limit			
63	Benzo(a)Pyrene											No Limit	No Limit			
64	Benzo(b)Fluoranthene											No Limit	No Limit			
65	Benzo(e)Fluoranthene											No Limit	No Limit			
66	Benzo(g)Fluoranthene											No Limit	No Limit			
67	Benzo(i)Fluoranthene											No Limit	No Limit			
68	Benzo(j)Fluoranthene											No Limit	No Limit			
69	Benzo(k)Fluoranthene											No Limit	No Limit			
70	Benzo(l)Fluoranthene											No Limit	No Limit			
71	2-Chlorophenol											No Limit	No Limit			
72	4-Chlorophenol											No Limit	No Limit			
73	Chloroethane											No Limit	No Limit			
74	Chloroethene											No Limit	No Limit			
75	1,2-Dichloroethane											No Limit	No Limit			
76	1,2-Dichloroethane											No Limit	No Limit			
77	1,4-Dichlorobenzene											No Limit	No Limit			
78	2,4-Dichlorobenzene											No Limit	No Limit			
79	Diallyl Phthalate											No Limit	No Limit			
80	Dimethyl Phthalate											No Limit	No Limit			
81	Diethyl Phthalate											No Limit	No Limit			
82	2,4-Dinitrophenol											No Limit	No Limit			

CTR#	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS		Comment	
		Saltwater / Freshwater / Basin Plain										Lowest MDEL	Recommendation		
		ECA scudo multiplier (6.7)	LTA acute	ECA aquatic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL multiplier 99	MDEL multiplier 99	MDEL eq life					
83	2,6-Dimethylololone													No Limit	
84	Di-n-Octyl Phthalate													No Limit	
85	1,2-Dibenzylhydrazine													No Limit	
86	Fluorobenzene													No Limit	
87	Hexachlorobenzene													No Limit	
88	Hexachlorobenzene													No Limit	
89	Hexachlorobutadiene													No Limit	
90	Hexachlorocyclopentadiene													No Limit	
91	Hexachlorocyclopentadiene													No Limit	
92	Hexachlorocyclopentadiene													No Limit	
93	Hexachlorocyclopentadiene													No Limit	
94	Hexachlorocyclopentadiene													No Limit	
95	Hexachlorocyclopentadiene													No Limit	
96	Hexachlorocyclopentadiene													No Limit	
97	Hexachlorocyclopentadiene													No Limit	
98	Hexachlorocyclopentadiene													No Limit	
99	Hexachlorocyclopentadiene													No Limit	
100	Hexachlorocyclopentadiene													No Limit	
101	Hexachlorocyclopentadiene													No Limit	
102	Hexachlorocyclopentadiene													No Limit	
103	Hexachlorocyclopentadiene													No Limit	
104	Hexachlorocyclopentadiene													No Limit	
105	Hexachlorocyclopentadiene													No Limit	
106	Hexachlorocyclopentadiene													No Limit	
107	Hexachlorocyclopentadiene													No Limit	
108	Hexachlorocyclopentadiene													No Limit	
109	Hexachlorocyclopentadiene													No Limit	
110	Hexachlorocyclopentadiene													No Limit	
111	Hexachlorocyclopentadiene													No Limit	
112	Hexachlorocyclopentadiene													No Limit	
113	Hexachlorocyclopentadiene													No Limit	
114	Hexachlorocyclopentadiene													No Limit	
115	Hexachlorocyclopentadiene													No Limit	
116	Hexachlorocyclopentadiene													No Limit	
117	Hexachlorocyclopentadiene													No Limit	
118	Hexachlorocyclopentadiene													No Limit	
119	Hexachlorocyclopentadiene													No Limit	
120	Hexachlorocyclopentadiene													No Limit	

Notes:
 U = Undetermined due to lack of data
 Us = Undetermined due to lack of CTR V
 C = Water Quality Criteria
 B = Background (receiving water data)

CTR#	Parameters	Units	CY	MEC	Freshwater		Saltwater		Human Health for consumption of:		REASONABLE POTENTIAL ANALYSIS (RPA)						HUMAN HEALTH CALCULATIONS	
					C acute = CMC tot	C chronic = CMC tot	C acute = CMC tot	C chronic = CMC tot	Wear & organisms	Organisms only	Are all B data points non-detects (Y/N)?	Are all B data points min detection limit (MDL)?	Enter the detected max conc (µg/L)	If all B is ND is MDL-C? (Y/N)	Tier 3 - other Info. ?	RPA Result- Need Limit?	Reasons	AMEL hh = ECA = C hh MELOAMEL multiplier
1	Arsenic	µg/L	0.6	0.6	69.00	35.00	4900.00	4900.00	Organisms only	Organisms only	Y	N	2.31	Y	No	MEC-C & B-C	2.44	
2	Branol	µg/L	0.6	No Criteria	42.25	9.36	No Criteria	No Criteria	Narrative	Narrative	Y	N	0.97	No	MEC-C & B-C			
3	Cadmium	µg/L	0.6	0.607	1107.75	50.35	No Criteria	No Criteria	Narrative	Narrative	Y	N	15.6	No	MEC-C & B-C			
4	Chromium (VI)	µg/L	0.6	0.37	578	373	50.35	50.35	Narrative	Narrative	Y	N	25.4	No	MEC-C & B-C			
5	Copper	µg/L	0.6	0.874	2200.00	1107.75	50.35	50.35	Narrative	Narrative	Y	N	25.4	No	MEC-C & B-C			
6	Copper	µg/L	0.6	0.14	Resealed	Resealed	0.051	0.051	Narrative	Narrative	Y	N	0.2	Y	MEC-C	0.051	2.01	0.10232
7	Lead	µg/L	0.6	0.622	24	74.75	4600.00	8.28	Narrative	Narrative	Y	N	2.85	Y	MEC-C & B-C	4600	2.04	9884.30763
8	Nickel	µg/L	0.6	0.6	230.85	71.14	4600.00	2.24	Narrative	Narrative	Y	N	4.8	Y	MEC-C & B-C	4600	2.01	12.63862
9	Stannum	µg/L	0.6	0.6	2.24	2.24	4600.00	2.24	Narrative	Narrative	Y	N	2.75	Y	MEC-C & B-C	4600	2.01	12.63862
10	Silver	µg/L	0.6	0.6	0.54	0.54	4600.00	0.54	Narrative	Narrative	Y	N	0.94	Y	MEC-C & B-C	4600	2.01	12.63862
11	Thallium	µg/L	0.6	0.6	0.54	0.54	4600.00	0.54	Narrative	Narrative	Y	N	0.94	Y	MEC-C & B-C	4600	2.01	12.63862
12	Vanadium	µg/L	0.6	0.6	0.54	0.54	4600.00	0.54	Narrative	Narrative	Y	N	0.94	Y	MEC-C & B-C	4600	2.01	12.63862
13	Zinc	µg/L	0.6	0.6	1.00	1.00	4600.00	1.00	Narrative	Narrative	Y	N	0.94	Y	MEC-C & B-C	4600	2.01	12.63862
14	Cyanide	µg/L	0.6	0.025	1.00	1.00	22000.00	1.00	Narrative	Narrative	Y	N	0.2	Y	MEC-C & B-C	22000.00	2.01	12.63862
15	Aluminum	µg/L	0.6	0.6	780	780	0.00000014	0.00000014	Narrative	Narrative	Y	N	20	Y	MEC-C & B-C	780	2.01	12.63862
16	2,2,7,8-TCDD	µg/L	0.6	0.6	0.21	0.21	71.0	71.0	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	71.0	2.01	12.63862
17	Acetaminophen	µg/L	0.6	0.6	360	360	360	360	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	360	2.01	12.63862
18	Bromodiphenyl ether	µg/L	0.6	0.6	4.4	4.4	21000	4.4	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	4.4	2.01	12.63862
19	Chlorobenzene	µg/L	0.6	0.6	34	34	21000	34	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	34	2.01	12.63862
20	Carbon Tetrachloride	µg/L	0.6	0.6	46	46	4600	46	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	46	2.01	12.63862
21	Carbon Tetrachloride	µg/L	0.6	0.6	46	46	4600	46	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	46	2.01	12.63862
22	Chlorobenzene	µg/L	0.6	0.6	34	34	21000	34	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	34	2.01	12.63862
23	Chlorobenzene	µg/L	0.6	0.6	34	34	21000	34	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	34	2.01	12.63862
24	Chlorobenzene	µg/L	0.6	0.6	34	34	21000	34	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	34	2.01	12.63862
25	2-Chlorobiphenyl ether	µg/L	0.6	0.6	46	46	4600	46	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	46	2.01	12.63862
26	Chloroform	µg/L	0.6	0.6	46	46	4600	46	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	46	2.01	12.63862
27	Dichlorobenzene	µg/L	0.6	0.6	46	46	4600	46	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	46	2.01	12.63862
28	1,1-Dichloroethane	µg/L	0.6	0.6	90	90	90	90	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	90	2.01	12.63862
29	1,1-Dichloroethane	µg/L	0.6	0.6	90	90	90	90	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	90	2.01	12.63862
30	1,1-Dichloroethane	µg/L	0.6	0.6	90	90	90	90	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	90	2.01	12.63862
31	1,2-Dichloroethane	µg/L	0.6	0.6	39	39	3900	39	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	39	2.01	12.63862
32	1,2-Dichloroethane	µg/L	0.6	0.6	39	39	3900	39	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	39	2.01	12.63862
33	Ethylbenzene	µg/L	0.6	0.381	1700	1700	1700	1700	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	1700	2.01	12.63862
34	Ethylbenzene	µg/L	0.6	0.381	1700	1700	1700	1700	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	1700	2.01	12.63862
35	Methyl Chloride	µg/L	0.6	0.6	4600	4600	4600	4600	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	4600	2.01	12.63862
36	Methylene Chloride	µg/L	0.6	0.6	1600	1600	1600	1600	Narrative	Narrative	Y	N	1.2	Y	MEC-C & B-C	1600	2.01	12.63862
37	1,1,2,2-Tetrachloroethane	µg/L	0.6	0.6	11	11	11000	11	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	11	2.01	12.63862
38	Tetrahydrofuran	µg/L	0.6	0.6	8.5	8.5	8.5	8.5	Narrative	Narrative	Y	N	0.8	Y	MEC-C & B-C	8.5	2.01	12.63862
39	Tetrahydrofuran	µg/L	0.6	0.6	8.5	8.5	8.5	8.5	Narrative	Narrative	Y	N	0.8	Y	MEC-C & B-C	8.5	2.01	12.63862
40	Trichloroethylene	µg/L	0.6	0.6	14000	14000	14000	14000	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	14000	2.01	12.63862
41	1,1,1,1-Tetrachloroethane	µg/L	0.6	0.6	42	42	42	42	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	42	2.01	12.63862
42	1,1,2-Trichloroethane	µg/L	0.6	0.6	81	81	81	81	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	81	2.01	12.63862
43	Trichloroethylene	µg/L	0.6	0.6	525	525	525	525	Narrative	Narrative	Y	N	0.5	Y	MEC-C & B-C	525	2.01	12.63862
44	Vinyl Chloride	µg/L	0.6	0.6	750	750	750	750	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	750	2.01	12.63862
45	2,4-Dichlorobenzene	µg/L	0.6	0.6	2300	2300	2300	2300	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	2300	2.01	12.63862
46	2,4-Dichlorobenzene	µg/L	0.6	0.6	2300	2300	2300	2300	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	2300	2.01	12.63862
47	2,4-Dichlorobenzene	µg/L	0.6	0.6	2300	2300	2300	2300	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	2300	2.01	12.63862
48	4,6-dinitro-o-cresol (4,6-dinitro-1,3-dinitrophenol)	µg/L	0.6	0.6	765	765	765	765	Narrative	Narrative	Y	N	25	Y	MEC-C & B-C	765	2.01	12.63862
49	2,4-Dinitrophenol	µg/L	0.6	0.6	14000	14000	14000	14000	Narrative	Narrative	Y	N	20	Y	MEC-C & B-C	14000	2.01	12.63862
50	4-Nitrophenol	µg/L	0.6	0.6	14000	14000	14000	14000	Narrative	Narrative	Y	N	20	Y	MEC-C & B-C	14000	2.01	12.63862
51	4-Nitrophenol	µg/L	0.6	0.6	14000	14000	14000	14000	Narrative	Narrative	Y	N	20	Y	MEC-C & B-C	14000	2.01	12.63862
52	3-Methyl-4-Chlorophenol (3-Methyl-4-chloro-phenol)	µg/L	0.6	0.6	13.00	7.50	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	13.00	2.01	12.63862
53	Perchloroethylene	µg/L	0.6	0.6	4600	4600	4600	4600	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	4600	2.01	12.63862
54	1,2-Dichloroethane	µg/L	0.6	0.6	39	39	3900	39	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	39	2.01	12.63862
55	1,2-Dichloroethane	µg/L	0.6	0.6	39	39	3900	39	Narrative	Narrative	Y	N	1	Y	MEC-C & B-C	39	2.01	12.63862
56	Acenaphthylene	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
57	Acenaphthylene	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
58	Anthracene	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
59	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
60	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
61	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
62	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
63	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
64	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
65	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
66	Benzofuran	µg/L	0.6	0.6	1	1	No Criteria	No Criteria	Narrative	Narrative	Y	N	5	Y	MEC-C & B-C	1	2.01	12.63862
67	Benzofuran	µg/L	0.6	0.6	1	1												

CITE#	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS			Recommendation	Comment
		Saltwater / Freshwater / Basin Plain					Freshwater / Basin Plain					Lowest AMEL	Lowest MDEL			
		ECA acute multiplier (0.7)	LTA acute	ECA chronic multiplier	LTA chronic	AMEL multiplier 95	Lowest LTA	AMEL multiplier 95	AMEL ac 99	MDEL multiplier 99	MDEL ac 99					
1	Arsenic	0.22	15.05	0.39	44.22	14.22	1.87	28.66	4.98	85.13582	26.66	85.14	No Limit			
2	Beryllium												No Limit			
3	Bismuth												No Limit			
4	Boron												No Limit			
5a	Chromium (III)												No Limit			
5b	Chromium (VI)												No Limit			
6	Copper	0.25	1.44	0.44	1.63	1.44	1.75	2.52	4.03	5.78	2.52	5.78	No Limit			
7	Lead	0.16	35.23	0.29	2.51	2.51	2.25	5.65	6.27	15.74038	5.65	15.74	No Limit			
8	Nickel												No Limit			
9	Nickel	0.31	23.28	0.52	4.28	4.28	1.97	6.73	9.21	13.73461	6.73	13.73	No Limit			
10	Selenium												No Limit			
11	Silver												No Limit			
12	Thallium	0.30	28.26	0.50	42.80	28.26	1.81	45.46	3.11	95.14	45.46	95.14	No Limit			
13	Vanadium												No Limit			
14	Zinc												No Limit			
15	Absorbs												No Limit			
16	2,3,7,8-TCDF												No Limit			
17	Aroclor												No Limit			
18	Benzo(a)pyrene												No Limit			
19	Benzofuran												No Limit			
20	Bromoforn												No Limit			
21	Carbon Tetrachloride												No Limit			
22	Chlorobenzene												No Limit			
23	Chlorodibromomethane												No Limit			
24	Chlorodibromomethane												No Limit			
25	2-Chlorodibromomethane												No Limit			
26	Chloroform												No Limit			
27	Dichlorodibromomethane												No Limit			
28	1,1-Dichloroethane												No Limit			
29	1,1-Dichloroethane												No Limit			
30	1,1-Dichloroethane												No Limit			
31	1,2-Dichloroethane												No Limit			
32	1,3-Dichloroethane												No Limit			
33	Ethylbenzene												No Limit			
34	Methyl Bromide												No Limit			
35	Methyl Chloride												No Limit			
36	Methylene Chloride												No Limit			
37	1,1,2,2-Tetrachloroethane												No Limit			
38	Tetrachloroethylene												No Limit			
39	Toluene												No Limit			
40	Trichloroethylene												No Limit			
41	1,1,1-Trichloroethane												No Limit			
42	1,1,2-Trichloroethane												No Limit			
43	Trichloroethylene												No Limit			
44	Vinyl Chloride												No Limit			
45	1,1-Dichloroethane												No Limit			
46	2,4-Dimethylphenol												No Limit			
47	2,4-Dimethylphenol												No Limit			
48	4-B-dinitro-ortho (butyl-methyl-4-dinitrophenol)												No Limit			
49	4-B-dinitro-ortho (butyl-methyl-4-dinitrophenol)												No Limit			
50	2-Nitrophenol												No Limit			
51	4-Nitrophenol												No Limit			
52	3-Methyl-4-Chlorophenol (butyl-methyl-4-chlorophenol)												No Limit			
53	4-Chlorophenol												No Limit			
54	Phenol												No Limit			
55	2,4,6-Trichlorophenol												No Limit			
56	Acenaphthene												No Limit			
57	Acenaphthylene												No Limit			
58	Anthracene												No Limit			
59	Anthracene												No Limit			
60	Benzo(a)Anthracene												No Limit			
61	Benzo(b)Fluoranthene												No Limit			
62	Benzo(k)Fluoranthene												No Limit			
63	Benzo(a)Pyrene												No Limit			
64	Benzo(a)Pyrene												No Limit			
65	Benzo(a)Pyrene												No Limit			
66	Benzo(a)Pyrene												No Limit			
67	Benzo(a)Pyrene												No Limit			
68	Benzo(a)Pyrene												No Limit			
69	Benzo(a)Pyrene												No Limit			
70	Benzo(a)Pyrene												No Limit			
71	2-Chlorophenyl Ethyl Ether												No Limit			
72	4-Chlorophenyl Ethyl Ether												No Limit			
73	Chrysene												No Limit			
74	Dibenz(a,h)Anthracene												No Limit			
75	Dibenz(a,h)Anthracene												No Limit			
76	1,3-Dichlorobenzene												No Limit			
77	1,4-Dichlorobenzene												No Limit			
78	3,3-Dichlorobenzidine												No Limit			
79	Dibenz(b,h)Anthracene												No Limit			
80	Dibenz(b,h)Anthracene												No Limit			
81	Di-n-Buyl Phthalate												No Limit			
82	7,4-Dinitrobenzene												No Limit			

CTR#	Chemicals	AQUATIC LIFE CALCULATIONS										LIMITS		Recommendation	Comment
		Saltwater / Freshwater / Basin Plan										Lowest AMEL	Lowest MDEL		
		ECA acute multiplier (5.7)	LTA acute	ECA chronic multiplier	LTA chronic	AMEL multiplier (5)	Lowest LTA	AMEL multiplier (5)	MDEL multiplier (9)	MDEL eq (5)					
83	2,4-Dichloroacetic acid													No Limit	
84	Din-Octyl Phthalate													No Limit	
85	1,2-Dibenzylhydrazine													No Limit	
86	Fluorethene													No Limit	
87	Fluorene													No Limit	
88	Hexachlorobenzene													No Limit	
89	Hexachlorobutadiene													No Limit	
90	Hexachlorocyclopentadiene													No Limit	
91	Hexachlorocyclopentadiene													No Limit	
92	Hexachlorocyclopentadiene													No Limit	
93	Hexachlorocyclopentadiene													No Limit	
94	Hexachlorocyclopentadiene													No Limit	
95	Hexachlorocyclopentadiene													No Limit	
96	Hexachlorocyclopentadiene													No Limit	
97	Hexachlorocyclopentadiene													No Limit	
98	Hexachlorocyclopentadiene													No Limit	
99	Hexachlorocyclopentadiene													No Limit	
100	Hexachlorocyclopentadiene													No Limit	
101	Hexachlorocyclopentadiene													No Limit	
102	Hexachlorocyclopentadiene													No Limit	
103	Hexachlorocyclopentadiene													No Limit	
104	Hexachlorocyclopentadiene													No Limit	
105	Hexachlorocyclopentadiene													No Limit	
106	Hexachlorocyclopentadiene													No Limit	
107	Hexachlorocyclopentadiene													No Limit	
108	Hexachlorocyclopentadiene													No Limit	
109	Hexachlorocyclopentadiene													No Limit	
110	Hexachlorocyclopentadiene													No Limit	
111	Hexachlorocyclopentadiene													No Limit	
112	Hexachlorocyclopentadiene													No Limit	
113	Hexachlorocyclopentadiene													No Limit	
114	Hexachlorocyclopentadiene													No Limit	
115	Hexachlorocyclopentadiene													No Limit	
116	Hexachlorocyclopentadiene													No Limit	
117	Hexachlorocyclopentadiene													No Limit	
118	Hexachlorocyclopentadiene													No Limit	
119	Hexachlorocyclopentadiene													No Limit	
120	Hexachlorocyclopentadiene													No Limit	

Notes:
 U = Undetermined due to lack of data
 U = Undetermined due to lack of CTR V
 C = Water Quality Criteria
 B = Background receiving water data

CTR#	Parameters	Units	CV	MEC	Freshwater		Saltwater		Human Health for consumption of		REASONABLE POTENTIAL ANALYSIS (RPA)					HUMAN HEALTH CALCULATIONS			
					C concn = CMC tot	Organisms only	Organisms only	Enter the pollutant's max concn (ug/L)	If all B is ND is MBL-C7?	If B-C, effluent limit required	Tier 3 - other (u/f, 7)	RPA Result - Need Limit?	Reason	AMEL lh = ECA = C hh MEEL AMEL O only	MEEL lh				
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria															
84	Dip-n-Octyl Phthalate	ug/L	0.6	No Criteria															
85	1,2-Dichloroethane	ug/L	0.6	No Criteria															
86	Fluorene	ug/L	0.6	No Criteria															
87	Fluoranthene	ug/L	0.6	No Criteria															
88	Hexachlorobenzene	ug/L	0.6	No Criteria															
89	Hexachlorocyclopentadiene	ug/L	0.6	No Criteria															
90	Hexachlorocyclopentadiene	ug/L	0.6	No Criteria															
91	Hexachlorobenzene	ug/L	0.6	No Criteria															
92	Hexachlorocyclopentadiene	ug/L	0.6	No Criteria															
93	Isophthalic acid	ug/L	0.6	No Criteria															
94	Naphthalene	ug/L	0.6	No Criteria															
95	Nitrobenzene	ug/L	0.6	No Criteria															
96	N-Nitrosodimethylamine	ug/L	0.6	No Criteria															
97	N-Nitrosodiphenylamine	ug/L	0.6	No Criteria															
98	N-Nitrosodiphenylamine	ug/L	0.6	No Criteria															
99	Phenanthrene	ug/L	0.6	No Criteria															
100	Phenanthrene	ug/L	0.6	No Criteria															
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria															
102	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria															
103	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria															
104	benz-BHC	ug/L	0.6	0.01															
105	gamma-BHC	ug/L	0.6	0.01															
106	delta-BHC	ug/L	0.6	0.02															
107	alpha-BHC	ug/L	0.6	No Criteria															
108	4,4'-DDT	ug/L	0.6	No Criteria															
109	4,4'-DDE (linked to DDT)	ug/L	0.6	No Criteria															
110	4,4'-DDE	ug/L	0.6	No Criteria															
111	Dieldrin	ug/L	0.6	No Criteria															
112	alpha-Endosulfen	ug/L	0.6	No Criteria															
113	beta-Endosulfen	ug/L	0.6	No Criteria															
114	Endosulfen Sulfate	ug/L	0.6	0.05															
115	Endrin	ug/L	0.6	0.05															
116	Endrin Aldehyde	ug/L	0.6	0.01															
117	Heptachlor	ug/L	0.6	0.01															
118	Heptachlor Epoxide	ug/L	0.6	0.01															
119	Heptachlor Epoxide	ug/L	0.6	0.01															
120	Toxaphene	ug/L	0.6	0.01															

Notes:
 Ud = Undetermined due to lack of data
 U = Undetermined due to lack of CTR Water Quality Criteria
 C = Water Quality Criteria
 B = Background receiving water data

CIR#	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS			Recommendation	Comment
		LTA		ECA chronic		Schwartz / Freshwater / Basin Plan		MDEL		Lowest AMEL	Lowest MDEL	No Limit				
		multiplier (a,2)	acute (a,1)	multiplier (b,2)	chronic (b,1)	AMEL multiplier (a)	Lowest LTA	AMEL multiplier (b)	MDEL multiplier (b)				MDEL eq life			
1	Arsenic	0.25	17.54	0.45	18.06	1.73	27.33	3.92	63.7276	27.63206	63.17276	No Limit				
2	Beryllium											No Limit				
3	Cadmium											No Limit				
4	Cerium (III)											No Limit				
5a	Chromium (VI)	0.26	1.53	0.46	1.71	1.70	2.60	3.76	5.78	2.60	5.78	No Limit				
6	Copper	0.15	33.71	0.28	2.40	2.31	5.54	6.55	15.89736	5.54	15.70	No Limit				
7	Lead	0.33	24.78	0.54	4.48	1.55	6.83	3.02	13.4583	0.0500	0.10232	No Limit				
8	Mercury	0.32	0.72	0.53	0.72	1.55	1.12	3.11	2.24	1.1654	2.4269	No Limit				
9	Nickel	0.28	24.99	0.46	39.15	1.71	42.92	3.81	95.14	6.30001	12.63690	No Limit				
10	Selenium											No Limit				
11	Thallium											No Limit				
12	Zinc											No Limit				
13	Cyanide											No Limit				
14	Asbestos											No Limit				
15	2,3,7,8 TCDD											No Limit				
16	Atrazine											No Limit				
17	Acetophenone											No Limit				
18	Benzene											No Limit				
19	Bromoform											No Limit				
20	Carbon Tetrachloride											No Limit				
21	Chlorobenzene											No Limit				
22	Chloroethane											No Limit				
23	Chloroform											No Limit				
24	Chloroethene											No Limit				
25	2-Chloroethyl ethyl ether											No Limit				
26	Chloroform											No Limit				
27	Dichlorodimethyl ether											No Limit				
28	1,1-Dichloroethane											No Limit				
29	1,1-Dichloroethene											No Limit				
30	1,1-Dichloroethane											No Limit				
31	1,2-Dichloroethane											No Limit				
32	1,3-Dichloropropane											No Limit				
33	1,1,1-Trichloroethane											No Limit				
34	1,1,2-Trichloroethane											No Limit				
35	Methyl Chloride											No Limit				
36	Methylene Chloride											No Limit				
37	1,1,2,2-Tetrachloroethane											No Limit				
38	Tetrachloroethene											No Limit				
39	1,1,1-Trichloroethane											No Limit				
40	1,2-Dichloroethane											No Limit				
41	1,1,1-Trichloroethane											No Limit				
42	1,1,2-Trichloroethane											No Limit				
43	Trichloroethene											No Limit				
44	2-Chloroethane											No Limit				
45	2-Chloroethene											No Limit				
46	2,4-Dichlorophenol											No Limit				
47	4-(6-tert-butyl-2-pyridyl)-2-methyl-6-tert-butyl-4-methylpyrimidin-3(1H)-one											No Limit				
48	2,4-Dinitrophenol											No Limit				
49	2-Nitrophenol											No Limit				
50	4-Nitrophenol											No Limit				
51	3-Methyl-4-Chlorophenol											No Limit				
52	(2,4,6-Trichlorophenyl) Ether											No Limit				
53	Phenol											No Limit				
54	2,4,6-Trichlorophenol											No Limit				
55	2,4,6-Trichlorophenol											No Limit				
56	Acenaphthene											No Limit				
57	Acenaphthylene											No Limit				
58	Anthracene											No Limit				
59	Benzo(a)anthracene											No Limit				
60	Benzo(b)fluoranthene											No Limit				
61	Benzo(k)fluoranthene											No Limit				
62	Benzo(a)pyrene											No Limit				
63	Benzo(b)pyrene											No Limit				
64	Benzo(e)pyrene											No Limit				
65	Benzo(g)perylene											No Limit				
66	Benzo(i)perylene											No Limit				
67	Benzo(a)anthracene											No Limit				
68	Benzo(a)anthracene											No Limit				
69	Benzo(a)anthracene											No Limit				
70	Benzo(a)anthracene											No Limit				
71	2-Chloroethane											No Limit				
72	4-Chlorophenyl Ether											No Limit				
73	Chrysene											No Limit				
74	Dibenz(a,h)anthracene											No Limit				
75	1,2-Dichlorobenzene											No Limit				
76	1,4-Dichlorobenzene											No Limit				
77	1,4-Dichlorobenzene											No Limit				
78	3,3-Dichlorobenzidine											No Limit				
79	Dibenz(b,h)anthracene											No Limit				
80	Dibenz(a,h)anthracene											No Limit				
81	Dibenz(a,h)anthracene											No Limit				
82	2,4-Dinitrophenol											No Limit				

CTRF	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS		Recommendation	Comment	
		Subwater / Freshwater / Basin Plan					MDEQ eq					Lowest AMEL	Lowest MDEL			
		ECA acute multiplier (0.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier	AMEL eq multiplier	MDEL eq multiplier	MDEL eq						
83	2,6-Dinitrochlorobenzene														No Limit	
84	Di-n-Octyl Phthalate														No Limit	
85	1,2-Dichlorobenzene														No Limit	
86	Fluoranthene														No Limit	
87	Hexachlorobenzene														No Limit	
88	Hexachlorocyclopentadiene														No Limit	
89	Hexachlorobenzene														No Limit	
90	Hexachlorocyclopentadiene														No Limit	
91	Hexachlorocyclopentadiene														No Limit	
92	Hexachlorocyclopentadiene														No Limit	
93	Hexachlorocyclopentadiene														No Limit	
94	Hexachlorocyclopentadiene														No Limit	
95	Nitrobenzene														No Limit	
96	Nitrobenzene														No Limit	
97	Nitrobenzene														No Limit	
98	N-Nitrosodimethylamine														No Limit	
99	Phenanthrene														No Limit	
100	Picene														No Limit	
101	1,2,3-Trichlorobenzene														No Limit	
102	alpha-BHC														No Limit	
103	beta-BHC														No Limit	
104	delta-BHC														No Limit	
105	gamma-BHC														No Limit	
106	delta-BHC														No Limit	
107	gamma-BHC														No Limit	
108	4,4'-DDT														No Limit	
109	4,4'-DDE (linked to DDT)														No Limit	
110	4,4'-DDD														No Limit	
111	Dieldrin														No Limit	
112	alpha-Endosulfan														No Limit	
113	beta-Endosulfan														No Limit	
114	Endosulfan Sulfate														No Limit	
115	Endrin														No Limit	
116	Endrin Alkylate														No Limit	
117	Heptachlor														No Limit	
118	Heptachlor Epoxide														No Limit	
119	Heptachlor Epoxide (Form D)														No Limit	
120	Endrin														No Limit	

Notes:
 U = Undetermined due to lack of data
 Uc = Undetermined due to lack of CTR
 C = Water Quality Criterion
 B = Background receiving water data

CTR#	Parameters	Units	CV	MEC	Freshwater		Human Health for consumption use		Tier 1 - Need B Available		Are all B non-detects (Y/N)?	If all B is ND (Y/N)?	REASONABLE POTENTIAL ANALYSIS (RPA)		Tier 3 - other info. 7	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS			
					C acute = CMC to CMC to	C chronic = CMC to CMC to	Salinometer	Wear & equipment	Human Health for consumption use	Human Health for consumption use			Enter the pollutant B detected max conc (ug/L)	Enter the B detection limit (MDL)				AMEL th = ECA + C in MODEL	AMEL th multiplier		
1	Arsenic	ug/L	0.6		69.00	36.00															
2	Benzene	ug/L	0.6																		
3	Benzylamine	ug/L	0.6		42.25	9.36															
4	Cadmium	ug/L	0.6		1107.75	56.35															
5a	Chromium (VI)	ug/L	0.6		220.83	8.52															
5b	Chromium (III)	ug/L	0.6		Reserved	Reserved															
6	Mercury	ug/L	0.6		74.75	6.28															
7	Lead	ug/L	0.6		390.59	71.14															
8	Nickel	ug/L	0.6		2.21																
9	Selenium	ug/L	0.6		95.14	85.62															
10	Silver	ug/L	0.6																		
11	Sulfur	ug/L	0.6																		
12	Zinc	ug/L	0.6																		
13	Cyanide	ug/L	0.6		220000.00	1.00															
14	Aluminum	ug/L	0.6		0.00000014	0.00000014															
15	2,3,7,8-TCDD	ug/L	0.6		780	6.26															
16	Acetone	ug/L	0.6		61																
17	Acrolein	ug/L	0.6		71.0																
18	Benzene	ug/L	0.6		350	350.0															
19	Bromoforn	ug/L	0.6		4.4	4.40															
20	Carbon Tetrachloride	ug/L	0.6		21000	21000															
21	Chlorobenzene	ug/L	0.6		34																
22	Chloroethane	ug/L	0.6		46																
23	Chloroform	ug/L	0.6		90																
24	1,1-Dichloroethane	ug/L	0.6		39																
25	1,1-Dichloroethene	ug/L	0.6		1700	1700															
26	1,2-Dichloroethane	ug/L	0.6		2600	2600															
27	1,2-Dichloroethene	ug/L	0.6		468																
28	1,2-Dichloropropane	ug/L	0.6		1900	1900.0															
29	1,2-Dichloroethane	ug/L	0.6		11	11.00															
30	1,2-Dichloroethene	ug/L	0.6		2000	2000															
31	1,2-Dichloropropane	ug/L	0.6		140000	140000															
32	1,1,1-Trichloroethane	ug/L	0.6		42	42.0															
33	1,1,2-Trichloroethane	ug/L	0.6		81	81.0															
34	1,1,2-Trichloroethene	ug/L	0.6		400	400															
35	1,2-Dichloroethane	ug/L	0.6		790	790															
36	2,4-Dichlorophenol	ug/L	0.6		2300	2300															
37	4,6-dinitro-o-cresol (4,6-dinitro-2-chlorophenol)	ug/L	0.6		765	765.0															
38	4-Nitrophenol	ug/L	0.6		14000	14000															
39	2-Nitrophenol	ug/L	0.6																		
40	4-Nitrophenol	ug/L	0.6																		
41	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6		13.00	7.90															
42	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
43	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
44	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
45	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
46	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
47	4,6-dinitro-o-cresol (4,6-dinitro-2-chlorophenol)	ug/L	0.6																		
48	4-Nitrophenol	ug/L	0.6																		
49	2-Nitrophenol	ug/L	0.6																		
50	4-Nitrophenol	ug/L	0.6																		
51	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
52	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
53	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
54	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
55	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
56	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
57	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
58	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
59	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
60	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
61	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
62	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
63	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
64	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
65	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
66	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
67	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
68	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
69	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
70	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
71	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
72	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
73	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
74	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
75	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
76	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
77	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
78	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
79	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
80	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
81	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		
82	3-Methyl-4-Chlorophenol (3,4-Dichlorophenol)	ug/L	0.6																		

CTR#	Parameters	AQUATIC LIFE CALCULATIONS										LIMITS		Recommendation	Comment				
		Saltwater / Freshwater / Benthic Pln										Lowest AMEL	Lowest MDEL						
		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier	AMEL multiplier	AMEL multiplier	MDEL multiplier	MDEL multiplier	MDEL multiplier	MDEL multiplier						
1	Antimony															No Limit			
2	Arsenic																No Limit		
3	Boron																No Limit		
4	Chromium																No Limit		
5	Chromium (III)																No Limit		
6	Chromium (VI)																No Limit		
7	Copper	0.32	1.96	0.93	1.97	1.96		1.95	2.88	3.11							5.78		
8	Lead																	No Limit	
9	Nickel																	No Limit	
10	Selenium																	No Limit	
11	Silver																	No Limit	
12	Thallium																	No Limit	
13	Vanadium																	No Limit	
14	Zinc																	No Limit	
15	Absciss																	No Limit	
16	2,3,7,8 TCDF																	No Limit	
17	Aroclor																	No Limit	
18	Benzo(a)anthracene																	No Limit	
19	Benzo(a)pyrene																	No Limit	
20	Bromoforn																	No Limit	
21	Carbon tetrachloride																	No Limit	
22	Chlorobenzene																	No Limit	
23	Chloroform																	No Limit	
24	Chlorobenzonitrile																	No Limit	
25	2-Chloroethanol																	No Limit	
26	Chloroform																	No Limit	
27	Dichlorobromomethane																	No Limit	
28	1,1-Dichloroethane																	No Limit	
29	1,1-Dichloroethene																	No Limit	
30	1,1-Dichloroethane																	No Limit	
31	1,2-Dichloroethane																	No Limit	
32	1,2-Dichloroethene																	No Limit	
33	Dichlorobenzene																	No Limit	
34	Methyl Bromide																	No Limit	
35	Methylene Chloride																	No Limit	
36	1,1,2,2-Tetrachloroethane																	No Limit	
37	1,1,2,2-Tetrachloroethane																	No Limit	
38	Tetrachloroethene																	No Limit	
39	Toluene																	No Limit	
40	1,2-Dichloroethene																	No Limit	
41	1,2-Dichloroethane																	No Limit	
42	1,1,2-Trichloroethane																	No Limit	
43	Trichloroethene																	No Limit	
44	Vinyl Chloride																	No Limit	
45	2-Chloroethanol																	No Limit	
46	2-Chloroethene																	No Limit	
47	2,4-Dinitrophenol																	No Limit	
48	4,6-dinitro-2-cresol (dinitro-cresol)																	No Limit	
49	2,4-Dinitrophenol																	No Limit	
50	4-Nitrophenol																	No Limit	
51	4-Nitrophenol																	No Limit	
52	3-Methyl-4-Chlorophenol																	No Limit	
53	Para-chloro-ortho-cresol																	No Limit	
54	Para-chloro-ortho-cresol																	No Limit	
55	Para-chloro-ortho-cresol																	No Limit	
56	Acenaphthene																	No Limit	
57	Acenaphthene																	No Limit	
58	Anthracene																	No Limit	
59	Benzo(a)anthracene																	No Limit	
60	Benzo(a)pyrene																	No Limit	
61	Benzo(b)fluoranthene																	No Limit	
62	Benzo(k)fluoranthene																	No Limit	
63	Benzo(e)pyrene																	No Limit	
64	Benzo(a)fluoranthene																	No Limit	
65	Benzo(b)fluoranthene																	No Limit	
66	Benzo(k)fluoranthene																	No Limit	
67	Benzo(a)anthracene																	No Limit	
68	Benzo(a)anthracene																	No Limit	
69	4-Bromophenyl Phenyl Ether																	No Limit	
70	4-Bromophenyl Phenyl Ether																	No Limit	
71	4-Chlorophenyl Phenyl Ether																	No Limit	
72	4-Chlorophenyl Phenyl Ether																	No Limit	
73	Chrysene																	No Limit	
74	Dibenz(a,h)anthracene																	No Limit	
75	1,2-Dichlorobenzene																	No Limit	
76	1,2-Dichlorobenzene																	No Limit	
77	1,4-Dichlorobenzene																	No Limit	
78	3,3-Dichlorobenzidine																	No Limit	
79	Dibenz(b)anthracene																	No Limit	
80	Dimethyl Phthalate																	No Limit	
81	Diethyl Phthalate																	No Limit	
82	2,4-Dibromobenzene																	No Limit	

CTR#	Parameter	AQUATIC LIFE CALCULATIONS										LIMITS		Recommendation	Comment	
		Saltwater / Freshwater / Basin Plain										Lowest AMEL	Lowest MDEL			
		ECA acute multiplier (0.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier	AMEL multiplier	MDEL multiplier	MDEL multiplier						
83	Paracetamol														No Limit	
84	Di-n-Octyl Phthalate														No Limit	
85	Di-n-Butyl Phthalate														No Limit	
86	2,2-Dibutylpropane														No Limit	
87	Fluorene														No Limit	
88	Hexachlorobenzene														No Limit	
89	Hexachlorobiphenyls														No Limit	
90	Hexachlorocyclopentadiene														No Limit	
91	Heptachlorocyclopentadiene														No Limit	
92	Heptachlorocyclopentadiene														No Limit	
93	Isophorone														No Limit	
94	Naphthalene														No Limit	
95	Nitrobenzene														No Limit	
96	N-Nitrosodimethylamine														No Limit	
97	N-Nitrosodiphenylamine														No Limit	
98	N-Nitrosodibenzylamine														No Limit	
99	Phenanthrene														No Limit	
100	Pyrene														No Limit	
101	1,2,4-Trichlorobenzene														No Limit	
102	Albin														No Limit	
103	BHC														No Limit	
104	beta-BHC														No Limit	
105	gamma-BHC														No Limit	
106	delta-BHC														No Limit	
107	Chlordane														No Limit	
108	4,4'-DDE (linked to DDT)														No Limit	
109	4,4'-DDE														No Limit	
110	4,4'-DDD														No Limit	
111	Dieldrin														No Limit	
112	alpha-Etofenbutifen														No Limit	
113	Beta-Etofenbutifen														No Limit	
114	Gamma-Etofenbutifen														No Limit	
115	Etofen														No Limit	
116	Etofen Aldehyde														No Limit	
117	Heptachlor Epoxide														No Limit	
118	Heptachlor Epoxide														No Limit	
119	Heptachlor Epoxide														No Limit	
120	Endrin														No Limit	

Notes:
 U# = Undetermined due to lack of data
 U# = Undetermined due to lack of CTR
 C = Water Quality Criteria
 B = Background receiving water data